

# Maternal And Perinatal Outcome in Abruptioplacentae in Siddhartha Medical College, Govt. General Hospital, Vijayawada, Andhra Pradesh

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## Abstract

**Objectives:** To assess maternal and perinatal outcome in patients presenting with Abruptioplacentae.

**Methods and Material:** This is a prospective study done at Siddhartha Medical College, Government General Hospital, Vijayawada from December 2017 to November 2019. All cases of Abruptio Placentae after 20 weeks of gestation whose diagnosis is confirmed clinically, or by ultrasound and or by retrospectively by retroplacental clots following delivery. Outcome was measured in terms of complications like anaemia, shock, acute renal failure, DIC, other puerperal infections and death. Perinatal outcome was noted in terms of pre term births, still births and NICU admissions.

**Result:** In 14,959 deliveries in our hospital, 96 cases were diagnosed as Abruptioplacentae, giving an incidence of 0.6 per 100 deliveries. Among the 96 Abruptioplacentae cases 18 (19%) were booked and 78 cases (81%) were unbooked cases at our hospital. 78% of cases were in the age group of 21-30 years. 18% of patients were  $\leq 20$  yrs, and 4% were above 30 yrs. Multipara accounted for 55% of the cases of Abruptio and primipara accounted for 45% of the cases. 46% of the cases were between 33-36+6 wks of gestation. 30% were above 37 wks of gestation and 24% were below 32 wks gestation. Among 96 cases in this study, Hypertension complicating pregnancy is seen in 62 (65%) cases, the previous history of abruptio was noted in 4% of the cases. 2 (2%) out of 96 cases had a history of trauma. PPRM was seen in 3 (3%) cases. There was an association of abruptio with previous LSCS in 7 (8%) cases. No specific risk factor was identified in 18 (18%) cases. 95 (99%) women were anaemic at the time of admission. 65 (68%) women had moderate anaemia, and 29 (30%) had severe anaemia. Out of 96 patients in this study, 47 (49%) women delivered vaginally, and 49 (51%) underwent a Caesarean section. Among these 96 cases of abruptio, 67 (70%) babies were found to be low birth weight, i.e. less than 2.5 kgs and 29 (30%) babies were above 2.5 kgs. Maternal mortality in this study was 2%. Out of the 2 cases of maternal mortality, the cause of death in 1 case was due to DIC and in 1 case was due to renal failure. Perinatal mortality in this study was 62 (65%). 55 were confirmed as IUD at the time of admission. Low birth weight 70%. Low APGAR score < 8 (15%). The seven fetuses were born alive but died in the early neonatal period due to respiratory distress.

**Conclusion:** Abruptioplacentae still remains a major cause of maternal and perinatal morbidity and mortality. More awareness and enabling factors should be created for more women to access antenatal facilities. complications were reduced by early diagnosis, availability of blood products and early referral to tertiary centers.

**Keywords:** Abruptioplacentae, perinatal, maternal complications.

**Abbreviations:** PIH – Pregnancy Induced Hypertension, DIC - Disseminated Intravascular Coagulation, PPH - Postpartum Hemorrhage, IUD - Intra Uterine Death

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## I. Introduction

Abruptio placenta is defined as a premature separation of normally implanted placenta either partially or totally prior to delivery of a baby. The term abruptio means 'breaking away from a mass', so it is a process by which placental attachment to the uterus got disrupted by haemorrhage<sup>1</sup>. The reported incidence of placental abruptio varies because of the different criteria used for diagnosis. That said, its frequency averages 0.5 per cent or 1 in 200 deliveries<sup>2</sup>. The aetiology of abruptio placenta is not well known. Placental abruptio is one of the most significant causes of maternal morbidity and perinatal mortality. Maternal peripartum risk includes obstetric haemorrhage, need for blood transfusion, disseminated intravascular coagulopathy, obstetric

hysterectomy, renal failure and even maternal death. Fetal risks are intrauterine growth restriction, low birth weight, preterm delivery, asphyxia, and perinatal death. With the improvement in medical facilities, early diagnosis by ultrasound, availability of blood and blood products, proper management of shock and DIC, good anaesthesia along with liberalisation of caesarean section, the rate of incidence of maternal morbidity and mortality is gradually on the decline. The present study is to know the impact and effect of abruptio placenta in maternal and perinatal outcome.

## II. Material Methods

This is a Prospective study. All cases of Abruptio Placentae after 20 weeks of gestation whose diagnosis is confirmed clinically, or by ultrasound and or by retrospectively by retroplacental clots following delivery. Women with placenta previa. Women either lower genital tract lesions, genital tract trauma. Women with coagulation disorders. All patients with a clinical diagnosis of abruptio placenta over 20 weeks gestation characterized by painful vaginal bleeding accompanied by hypertonic uterine contractions, a tender tense uterus with or without nonreassuring fetal heart rate/ fetal demise, pallor and rapid breathing with hypotension (Systolic BP < 90 mmHg) were recruited in the study. The presence of retro-placental clots post-delivery supported the diagnosis, but their absence was not exclusion criteria for the enrollment into the study.

Each patient's parity is taken. Clinical history of vaginal bleeding, abdominal pain and any history of trauma is taken. Systolic blood pressure was measured in mmHg and fetal heart rate counted for a whole minute using fetoscope. Patients were followed up for the mode of delivery, the use of oxytocin and amniotomy. Retro-placental clots were measured in grams. The maternal outcome in terms of anaemia, shock, acute renal failure, DIC, other puerperal complications and death were noted. Mothers and their babies with abruptio placenta were followed up for a period of 7 days after delivery.

## III. Result

A total of 96 cases of Abruptio placenta were recruited during the study period (December 2017 to November 2019) out of 14959 cases admitted for deliveries at our department of Obstetrics and Gynaecology at Government General Hospital, Siddhartha Medical College, Vijayawada. The incidence of Abruptio Placenta among pregnant women admitted at Government General Hospital, Siddhartha Medical College, Vijayawada from December 2017 to November 2019 is 0.6 per 100 deliveries. Among 96 cases of Abruptio placenta, 18 (19%) were booked, and 78 (81%) were unbooked at our hospital. 78% of the cases were in the age group of 21-30 yrs. 18% of patients were ≤ 20 yrs, and 4% were above 30 yrs. Multipara accounted for 55% of the cases of Abruptio and primipara accounted for 45% of the cases. 46% of the cases were between 33-36+6 wks of gestation. 30% were above 37 wks of gestation and 24% were below 32 wks gestation. Hypertension complicating pregnancy is seen in 62 (65%) cases, the previous history of abruptio was noted in 4% of the cases. 2 (2%) out of 96 cases had a history of trauma. PPROM was seen in 3 (3%) cases. There was an association of abruptio with previous LSCS in 7 (8%) cases. No specific risk factor was identified in 18 (18%) cases. Vaginal bleeding was the most common presentation in (69%) cases. 41 (43%) cases presented with vaginal bleeding and pain abdomen while 25 (26%) cases presented with vaginal bleeding alone. 23 (24%) cases presented with pain abdomen. 4 (4%) cases presented with decreased fetal movements and 3 (3%) cases presented with draining per vaginum (PPROM).

**Table 1 – Clinical presentation in abruptio**

Clinical presentation	No of cases	Percentage
Vaginal bleeding & pain abdomen	41	43%
Vaginal bleeding alone	25	26%
Pain abdomen	23	24%
Decreased fetal movements	4	4%
Draining p/v (PPROM)	3	3%

**PAGE Classification: Table 2**

	Number of cases	Percentage
PAGE 0	8	8%
PAGE 1	18	19%
PAGE 2	16	17%
PAGE 3	54	56%

95( 99%) women were anaemic at the time of admission. 65(68%) women had moderate anaemia, and 29(30%) had severe anaemia. As shown in the above table, 54(56%) cases were in PAGE 3. 16(17%) were in PAGE 2, 18(19%) in PAGE1 and 8(8%) in PAGE 0. Out of 96 patients in this study, 47 (49%) women delivered vaginally, and 49 (51%) underwent a Caesarean section. Among these 96 cases of abruption, 67 ( 70%) babies were found to be low birth weight, i.e. less than 2.5 kgs and 29 (30%) babies were above 2.5 kgs.

**Type of abruption: Table 3**

Type of abruption	number	percentage
Mixed	63	66%
Concealed	25	25%
Revealed	9	9%

**Maternal adverse outcomes – Table 4**

Need for blood products transfusion	73	76%
PPH	21	22%
Hysterectomy	1	1%
Shock	8	8%
DIC/Coagulopathy	9	9%
Acute renal failure	3	3%
Maternal death	2	2%

Out of the 21 cases of PPH, 15 were managed by medical methods, and six were managed by surgical methods. Couvelaire uterus was noted in 24 cases intraoperatively. Maternal mortality in this study was 2% . Out of the 2 cases of maternal mortality, the cause of death in 1 case was due to DIC and in 1 case was due to renal failure. Fetal adverse outcomes- Table 5:

	No of subjects	Percentage
Low birth weight	67	70%
LowAPGAR score(<8)	14	15%
Mortality	62	65%
IUD(preterm)	43	44%
IUD(term)	12	12%
Early neonatal death	7	7%

Among the 36 live births, there were seven early neonatal deaths which occurred due to fetal distress and prematurity. Perinatal mortality in this study was 62 (65%). 55 were confirmed as IUD at the time of admission . The seven fetuses were born alive but died in the early neonatal period due to respiratory distress.

#### IV. Discussion

A prospective study was conducted on patients with Abruptio placentae admitted in the department of Obstetrics and Gynaecology in Government General Hospital, Siddhartha Medical College, Vijayawada from December 2017 to November 2019 and maternal & perinatal outcomes were noted. Incidence of Abruptio in this study was 0.6%. Most of the cases were unbooked (81%). 78% of the women were in the age group of 21-30 years. Multipara accounted for 55% of the cases of abruption and primipara accounted for 45% cases. 46% of the patients were between 33 – 36+6 wks of gestation. Hypertensive disorders in pregnancy were the most common risk factor associated with abruption in 65% of the cases. Vaginal bleeding was the most common clinical presentation in 69% of the cases. Majority of the women were anaemic at the time of admission (99%). Most of the women delivered by Caesarean section (51%). 70% of the babies were found to be low birth weight (< 2.5kg). Maternal complications, like PPH, DIC, ARF, Hysterectomy, were seen in some cases of abruption. Blood and blood products transfusion was required in most (76%) of the cases. Maternal mortality in this study was 2%. Out of the 2 cases of maternal deaths, the cause of death in 1 case was due to DIC, and the cause of death in the other case was due to renal failure. Perinatal mortality in this study was 65%, and 57% were confirmed as IUDs at the time of admission itself.

### **V. Conclusion**

Abruptioplacentae still remains a major cause of maternal and perinatal morbidity and mortality. More awareness and enabling factors should be created for more women to access antenatal facilities. complications were reduced by early diagnosis, availability of blood products and early referral to tertiary centre's.

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