



## A STUDY ON FETOMATERNAL OUTCOME IN ABRUPTIO PLACENTA

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**ABSTRACT**

Placental abruption defined as the preterm partial or complete separation of normally situated placenta from the uterine wall. This study aimed to determine fetomaternal outcomes in women with abruption placenta. It is descriptive observational hospital based study design over a period of 3 months' time from September 2019 to November 2019 in the department of Obstetrics and Gynecology at G.K.G.H hospital, Bhuj, Gujarat, India, of 20 cases. The incidence of abruption placenta is 1.8% in our study. Fetal adverse outcomes of abruption placenta observed during study period were perinatal mortality 75% and low birth weight 60%. Incidence is alarmingly high in resource poor set ups of developing countries like ours. The predictors of maternal adverse outcomes were found to be malnutrition, anemia, PPH, DIC and maternal shock. Predictors for perinatal death were low birth weight, birth asphyxia

**KEYWORDS :** Abruption placenta, Feto adverse Outcome, Maternal adverse outcome

**INTRODUCTION**

Placental abruption defined as the preterm partial or complete separation of normally situated placenta from the uterine wall. It is a major cause of maternal morbidity and prenatal mortality complicating 1 in every 200 pregnancies (0.5-1%) in western nations; however rates may be as high as 4% in developing nations. Associated perinatal mortality is as high as 25-50 % with death due to abruption placenta accounting for one fourth of all perinatal mortality.<sup>1,2</sup>

Though exact etiology remains obscure, various risk factors have been implicated like impaired placentation, placental insufficiency, intrauterine hypoxia, uteroplacental under perfusion hypertension, non-vertex presentation, polyhydramnios, intrauterine growth retardation advanced maternal age, maternal trauma, cigarette smoking, alcohol consumption, cocaine abuse, short umbilical cord sudden decompression of uterus, retroplacental fibromyoma, post amniocentesis, prior fetal demise, previous miscarriage, grand multiparity, premature rupture of membranes, trauma and/or low pre-pregnancy body mass index. Signs and symptoms depend upon the degree of separation.<sup>3,4</sup>

The most common presentations include vaginal bleeding, uterine and abdominal pain and tenderness abnormal uterine contractions, premature labor, maternal hemodynamic instability, fetal distress and fetal death.<sup>5</sup> Abruption placenta occur in about 1% pregnancies with 0.3% in pregnancy at term throughout the world with severe abruption leading to fetal death in 0.12 % of pregnancies. Incidence in India varies between 1:50 to 1:500.

Objectives of present study were to determine fetomaternal outcome in patients with Abruption Placenta at Department of Obstetrics and Gynaecology, G.K.G.H Hospital, Bhuj, Gujarat, India

**CASE STUDY**

This study was descriptive observational hospital based study design over a period of 3 months' time, from September 2019 to November 2019 in the department of Obstetrics and Gynecology at G.K.G.H hospital, Bhuj, Gujarat, India. This is a teaching and referral hospital with approximately 8400 deliveries per year.

The study included a total of 30 cases of abruption placenta that came to labour ward of G.K.G.H hospital from September 2019 to November 2019 All patients with clinical diagnosis of abruption placenta over 28 weeks gestation characterized by painful vaginal bleeding accompanied by hypertonic uterine contractions, tender uterus, nonreassuring fetal heart rate/fetal distress, fetal demise, pallor and rapid breathing with hypotension (Systolic BP < 90mmHg) were recruited in the study.

**Study Variable****A) Predictor variables****Maternal variables:**

1. Clinical presentations: Systolic blood pressure, Pulse rate, Vaginal bleeding and Signs of DIC
2. Laboratory results: Bedside clotting time, Serum creatinine, Hemoglobin level, Prothrombin time and Platelet level.
3. Management received: Mode of delivery, Number of blood transfusion, Number of fresh frozen plasma (FFP), ICU admissions, and Peripartum hysterectomy.

**Fetal Variables:**

1. Gestation age
2. Birth weight
3. APGAR score
4. FHR
5. Mode of delivery

**B) Dependent variables**

1. Maternal major outcomes: Prolonged hospital stay and maternal death/survival.
2. Fetal major outcome: Perinatal death.

**RESULT AND DISCUSSION**

The study was undertaken at G.K. General Hospital, GAIMS, over period of three months from September to December 2019. Total no of 20 case were diagnosed as an Abruption placenta in this study. The incidence of abruption placenta is 1.8% in this study at our tertiary care center. The mean age calculated is 27.5 year of presentation, with maximum age being 35 year and minimum age being 20 year. Most of the patient 60% were primigravida, 20% second gravida and 20% multigravida. The etiological risk factors among patient were 40% unknown, 30% anemia, 20% hypertension, 10% other

including multigravida, poor socioeconomic condition & advanced mother age.

**TABLE 1: AGE DISTRIBUTION**

	Maximum age	Minimum age	Mean age
Age	35	20	27.5

**TABLE 2: PARITY**

Parity	No. of patient	Percentage
Primigravida	12	60%
Secondgravida	04	20%
Multigravida	04	20%

**TABLE 3: GEATATIONAL AGE**

Out of 20 cases 50% are less than 30 weeks of gestation, 30% were 30 to 36 weeks of gestation and 20% case were more than 36 week of gestation. More patient came with pre-term labour

Age in Weeks	No. of Patients	Percentage
<30	10	50%
30-36	06	30%
>36	04	20%

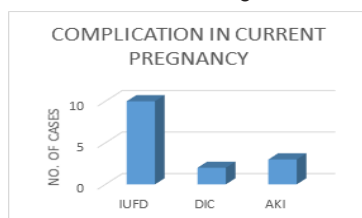
**TABLE 4: ANEMIA IN ABRUPTIO PLACENTA**

	NO. OF CASES	PERCENTAGE
NORMAL (more than 11 HB)	4	20%
MILD ( 9-11HB)	10	50%
MODERATE (7-9 HB)	4	20%
SEVERE (less than 7HB)	2	10%

Out of 20 cases 50% have mild anemia, 20% moderate anemia, 10% have severe anemia. Similar findings were evident in other studies from developing nation. 4-6

**CHART 1: COMPLICATION IN CURRENT PREGNANCY**

Out of 20 case of abruption, we found 10 babies were IUD and 5 babies were Premature, 3 IUGR and 2 were live. DIC was found in 2 patients out of 20 amounting to



Hemorrhage associated with DIC leads to further consumption of coagulation factors, setting off a vicious circle. Bleeding may occur into the uterine myometrium, leading to a beefy boggy uterus, called a Couvelaire uterus.



**Figure 1. Showing Couvelaire uterus**

10% which was comparable to incidences of other studies ranging between 4.16 to 16.5%. 7-9

**TABLE 5: REQUIREMENT OF BLOOD TRANSFUSION**

PCV	07
Whole Blood	03
FFP	06
RDP	02

**TABLE 6: FETAL ADVERSE OUTCOME**

VARIABLE	NO. OF CASE	PERCENTAGE
Live	10	50%
Fetal distress	2	5%
Low birth weight	5	25%
Healthy	8	40%
IUFD	10	50%

## CONCLUSION

Incidence of abruptio placenta is high in our women as most of the women belong to poor- Socioeconomic class. Frequency of abruptio placenta was more in women belonging to poor- Socioeconomic status with antenatal checkup and preexisting anemia. Mass information regarding the importance of antenatal care of pregnant women in a nearby Health facility can reduce the frequency of abruption and thus maternal and fetal morbidity - And mortality due to abruption.

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