



**ORIGINAL RESEARCH PAPER**

**Obstetrics & Gynaecology**

**RETROSPECTIVE ANALYSIS OF ABRUPTIO PLACENTA AND ITS MATERNAL AND PERINATAL OUTCOME AT GGH, KADAPA**

**KEY WORDS:**

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**ABSTRACT**

**BACKGROUND:** Any bleeding in or from genital tract beyond period of viability. (In India – 28weeks, according to ACOG– 28 weeks) is known as antepartum hemorrhage. Abruption placenta is one of the common cause of APH and is defined as premature separation of normally situated placenta. It is more common in 2nd half of pregnancy. Abruption placenta is serious complication of pregnancy and causes high maternal and neonatal mortality and morbidity. **AIMS AND OBJECTIVES:**

1. To determine maternal outcome in abruption placenta.
2. To determine perinatal out come in abruption placenta.

**METHODS:** Retrospective analysis of abruption placenta and its maternal and perinatal outcome was carried out between December 2021 to 2022 July at GGH Kadapa. **RESULT:** Incidence of abruption placenta 1.2%. it is most common in women of 30 to 35 years of age. 70% of cases associated with pre-eclampsia. Live births- 75%, IUD -15%, still birth - 10%. PPH in 45% cases. DIC accounts for 10% of all complications. Mode of delivery by vaginal was 45% and c- section was 55%. It is observed more in multigravida. **CONCLUSION:** Abruption Placenta is life threatening complication of pregnancy and is associated with poor maternal and fetal outcome if not managed appropriately. Hence, early diagnosis and prompt resuscitative measures would prevent both perinatal and maternal mortality and morbidity. Decline in perinatal mortality is due to improved obstetric care and excellent NICU facilities.

**INTRODUCTION**

Placental abruption is the most common cause of antepartum haemorrhage and is defined as premature separation of normally implanted placenta. More than 50% of separation of placenta results in death of fetus. Placental abruption occurs when there is a compromise of the vascular structures supporting the placenta. In other words, the vascular networks connecting the uterine lining and the maternal side of the placenta are torn away. Rupture of maternal vessels in the decidua basalis, thereby accumulating blood splits the decidua separating a thin layer of decidua with its placental attachment. Ruptured vessel can be artery or vein. If ruptured vessel is high pressure arterial bleeding, then near complete there will be near complete placental separation and it is central. There is rapid life threatening clinical manifestations (severe bleeding, DIC, absent FHR). If low pressure is venous haemorrhage, separation of placenta from margin tends to be self-limited and it results in small area of placenta separation. Here, clinical manifestations develop over a period of time like oligohydramnios and IUGR. Disruption of the vascular network may occur when the vascular structures are compromised because of hypertension or substance use or by conditions that causes stretching the uterus like polyhydramnios, multiple pregnancy. The uterus is a muscle and isoelastic whereas the placenta is less elastic than the uterus. Therefore, when the uterine tissue stretches suddenly, the placenta remains stable and the vascular structure connecting the uterine wall to the placenta tear away.<sup>2,3</sup> Placental abruption is one of the causes of vaginal bleeding in the second half of pregnancy. A focused history and physical examination is critical to differentiate placental abruption from other causes of vaginal bleeding. Placental abruption is a potentially life threatening situation. Therefore, accurate assessment of the patient and according management is very important to prevent a potentially poor outcome. Risk factors for abruption can be thought in four groups: health history, past obstetrical events, current pregnancy and unexpected trauma. Abruption is significant cause of maternal and perinatal mortality and morbidity. Placental abruption may be total or partial causing pain and vaginal bleeding which are hallmarks of placental abruption. Abruption placenta is the Abruption placenta is the major cause of haemorrhagic shock, DIC, renal failure and neonatal complications include

hypoxia, anaemia, growth restriction, prematurity, neurodevelopmental problems and premature death. Other maternal consequences like multiorgan failure and peripartum hysterectomy may also be seen. Maternal and fetal survival depends on early diagnosis and intervention. Assessment of the patient can provide very important clue for diagnosing onset of abruption placenta. The physical examination includes palpation of the uterus for tenderness, consistency, and frequency and duration of uterine contractions. The vaginal area is inspected for the presence of bleeding. Digital examination of the cervix should be delayed until a sonogram is obtained for placental localization and to rule out a placenta previa. If bleeding is present, the quantity and characteristic of the blood, as well as the presence of clots is evaluated. Bleeding is dark red in colour and associated with abdominal pain. However, the absence of vaginal bleeding does not eliminate the diagnosis of placental abruption. There is 5 fold increased risk of abruption in case of PIH patients. Recurrence risk after one prior abruption is 15% and 2 prior abruption is 25-30%.

**Aims and Objectives**

- To study the maternal outcome in abruption placenta
- To study the fetal outcome in abruption placenta

**Methods**

This is a retrospective study conducted at Government medical college, Kadapa from December 2021 to July 2022 were 4334. Total number of cases of abruption placenta cases from December 2021 to July 2022 is 90. This study includes all pregnant women who were diagnosed with abruption placenta. From case sheets, details of the patient like age, parity and maternal high-risk factors were collected. All study patients underwent a complete obstetrical examination and clinical workup including history, general physical examination and abdominal and pelvic examination. Detailed obstetric history was obtained and maternal high-risk factors like PIH, GDM, polyhydramnios was noted. placental abruption was suspected depending on clinical features like vaginal bleeding, uterine tenderness hypertonic uterus and diagnosis was confirmed by retroplacental clots. After initial resuscitation, mode of delivery was decided depending upon state of mother and fetus. Relevant blood investigations were

done. Ultrasound for fetal well-being was done. Investigation of choice is transabdominal sonography. Bleeding and severity of abruption is known to some extent by estimating retroplacental clots. Patients were managed according to fetal and maternal conditions. Maternal conditions like PPH, DIC, ARF and shock, pulmonary edema and infections. Fetal outcome were studied in the form of perinatal mortality (still birth and neonatal death), prematurity and admission to neonatal care unit.

**Results**

Maximum number of cases of abruptio placenta were between 30 -35 years. Increased maternal age is a risk factor for abruption placenta.

**Table 1 Association with age:**

SNO	AGE	PERCENTAGE
1	20-25 YEARS	10%
2	25-30 YEARS	30%
3	30-35 YEARS	40%
4	>35 YEARS	20%

Multiparity is a risk factor for abruptio placenta but in this study, there is no much significant difference in association with parity.

**Table 2 Association with parity:**

SNO	PARITY	PERCENTAGE
1	G 1	22%
2	G 2	33%
3	G 3	27%
4	G 4, G 5	18%

Most of them were associated with anaemia and PIH. 70% of the abruptio patients have PIH.

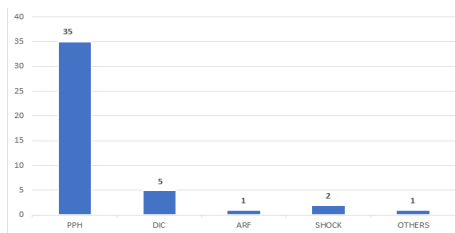
**Table 3 Association with PIH:**

S NO	CONDITION	PERCENTAGE
1	SEVERE PREECLAMPSIA	70%
2	ECLAMPSIA	10%
3	NORMAL BP	20%

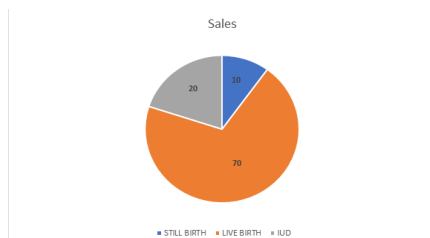
Maternal complications associated with abruptio placenta were PIH(35%), DIC(5%), ARF(1%), Shock(2%).

**BAR CHART 1**

**Maternal complications:**



Fetal complications include hypoxia anaemia, growth restriction, prematurity, neurodevelopmental problems and fetal death. 70% had live birth, 10% are still birth and 20% were intrauterine deaths.



**Discussion**

Placental abruption is one of the serious complications of

pregnancy, as it causes both poor maternal and fetal morbidity and mortality. The incidence of abruptio placenta was 2% in our study. The signs and symptoms of abruptio placenta vary depending upon the severity of bleeding and the degree of separation of the placenta. When placenta separation exceeds more than 50%, DIC occurs. Bleeding does not correspond to degree of placental separation in concealed type. Abruption occur mostly in third trimester. It is found that 70% of patients with severe preeclampsia, 10% with eclampsia and 20% with normal BP developed abruption in the study. Among the complications is most commonly observed. In abruption, renal failure is one of the major cause of maternal death but luckily no maternal mortality case occurred in the study. Regarding fetal outcome, 70% were live births, 10% were still births, and 20% were IUDs. A premature delivery can increase fetal morbidity in cases of abruption.

**CONCLUSION**

Increasing age has been implicated as a predisposing factor in Abruptio placenta. Most of the patients were unbooked and incidence of abruptio was high in multiparous. The study reveals that severe preeclampsia increases incidence of abruptio. Majority of patients had associated anaemia and PIH, and the mode of delivery varied according to maternal and fetal factors. Major complication on maternal side was PPH and fetal complications included hypoxia, anaemia, growth restriction, prematurity, neurodevelopmental problems, prematurity and fetal death. Antenatal care which identifies the risk factors like PIH plays an important role in decreasing the incidence of abruptio placenta and improving the maternal and fetal outcome. Regular antenatal check-up, anaemia correction, early diagnosis and identification of gestational hypertension would prevent the maternal and perinatal morbidity and mortality. It should be managed in centres with advanced maternal and neonatal facilities. Though maternal morbidity can be reduced with modern management of abruptio placenta but timely diagnosis and intervention is necessary. Early detection and active management will reduce morbidity and mortality.

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