



STUDY OF MATERNAL OUTCOMES AND RISK FACTORS IN ABRUPTIO PLACENTA AT A TERTIARY HEALTH CARE CENTRE.

Obstetrics & Gynaecology

Dr. Hetvi Pritesh Vaidya*

Assistant Professor, Dept. Of Obstetrics And Gynaecology, Swaminaryan Institute Of Medical Sciences And Research, Kalol, Gandhinagar, Gujarat, India. *Corresponding Author

ABSTRACT

Background: Abruption placenta is one form of antepartum hemorrhage where bleeding occurs due to premature separation of normally situated placenta. Precipitating and predisposing factors of abruption are age, parity, anaemia, malnutrition, poor socioeconomic condition, hypertensive disorder in pregnancy, eclampsia, gestational diabetes mellitus, premature rupture of membrane, and previous medical termination of pregnancy. **Methodology:** This is a retrospective cross sectional study done by analysing the case sheets of abruption placenta in tertiary health care centre, from January 2021 to December 2021. Cases collected during this study period were 21. Details from case records regarding the age and parity of the patient, as well as maternal high risk factors were noted. All other causes of APH were excluded. **Results:** The total number of cases collected were 21. Out of which we found that 16% with Chronic HTN, 44% severe preeclampsia, 15% eclampsia and 20% normotensive. **Conclusion:** Antenatal care and regular antenatal visits helps to identify the risk factors like hypertensive disorders in pregnancy which plays important role in decreasing the incidence of abruption placenta.

KEYWORDS

Abruption placenta, Antepartum hemorrhage, Hypertension, gestational diabetes mellitus.

INTRODUCTION

Abruption placenta is one form of antepartum hemorrhage where bleeding occurs due to premature separation of normally situated placenta¹. The overall incidence of abruption placentae is 1 in 200 deliveries¹. Abruption placenta implies the premature detachment of normally implanted placenta between 20 weeks of gestation and delivery.² Precipitating and predisposing factors of abruption are age, parity, anaemia, malnutrition, poor socioeconomic condition, hypertensive disorders in pregnancy, eclampsia, gestational diabetes mellitus, premature rupture of membrane, and previous medical termination of pregnancy.³

The most commonly identified risk factor for abruption placenta is maternal HTN. As there is increase in prevalence of risk factors for the abruption the incidence seems to be increased.⁴ Abruption placenta is due to rupture of uterine spiral artery. premature placental separation is initiated by hemorrhage into the decidua basalis⁵. Haematoma formation further causes separation of placenta leading to compromise of the blood supply to the fetus⁵.

CLINICAL CLASSIFICATION

PAGE CLASSIFICATION

Depending upon the degree of placental abruption and its clinical effects, the cases are graded as follows⁶:

Grade 0: clinical features may be absent.

Grade 1 (40%): slight vaginal bleeding, irritable uterus, minimal or absent uterine tenderness.

Grade 2 (45%): mild to moderate vaginal bleeding, uterine tenderness present, fetal distress.

Grade 3 (15%): moderate to severe vaginal bleeding, shock, mark uterine tenderness and fetal death.

AIMS & OBJECTIVE

To study the association of risk factor with maternal outcome in case of abruption placenta.

METHODOLOGY

Study Area: ARMCH, kumbhari, solapur.

Duration Of Study: Jan 2021 to Dec 2021

Type Of Study: Retrospective Cross Sectional Study

Inclusion Criteria:

AGE	MATERNAL RISK FACTOR
PARITY	HYPERTENSIVE DISORDERS IN PREGNANCY

Exclusion Criteria:

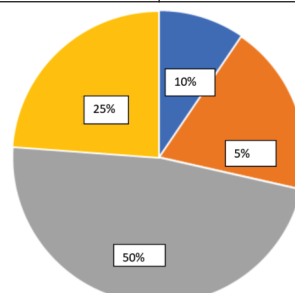
All the other causes of APH like placenta previa.

This is a retrospective cross sectional study done by analysing the case sheets of abruption placenta at tertiary health care centre, from January 2021 to December 2021. Cases collected during this study period were 21. Details from case records regarding the age and parity of the patient, as well as maternal high risk factors were noted. All other causes of APH were excluded. All the patients included in the study underwent an obstetrical examination and clinical workup regarding including history, general physical examination, abdominal and pelvic examination. Detailed obstetric history was obtained and maternal high – risk factors like Hypertensive disorders in pregnancy, GDM, polyhydramnios was noted. As 95% patients were admitted directly as emergencies, the diagnosis of abruption placenta was made depending on clinical features of vaginal bleeding, uterine tenderness, maternal tachycardia and fetal distress and the diagnosis confirmation was made by the retroplacental clots. Most blood in the retroplacental hematoma in a nontraumatic placental abruption is maternal. Investigations done on admission: Routine investigations such as CBC (initial as well as sequential), PT-INR, USG-OBS, USG(A+P) for liver & kidneys, Sr.creat, BUN. After initial resuscitation mode of delivery was decided depending upon status of mother and fetus. Fetal well being was assessed with cardiotocography and ultrasonography with doppler study. Diagnosis was confirmed by the presence of retroplacental clots which was used to estimate amount and severity of bleeding. Patients were managed according fetal and maternal conditions. The data collected were coded and entered in MS Excel and processed further with appropriate statistics. Maternal complications like PPH, DIC, ARF, shock, pulmonary edema and infections were studied.

RESULTS

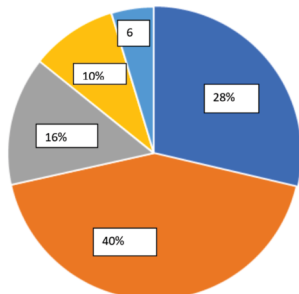
Age Wise Distribution

AGE:	
<20 years	10%
20 to 25 years	15%
26 to 30 years	50%
>30 years	25%

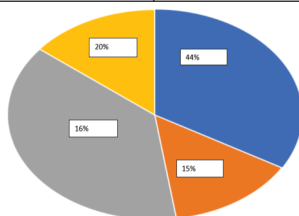


Parity Wise Distribution

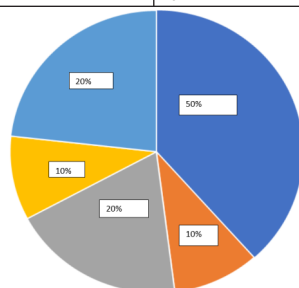
PARITY:	
Primi	28%
G2	40%
G3	16%
G4	10%
G5	6%

**Distribution Of Various Hypertensive Disorders In Pregnancy**

HTN Disorder in pregnancy:	
Severe Preeclampsia	44
Eclampsia	15
Chronic HTN	16
Normotensive	20

**Distribution According To Maternal Complications**

MATERNAL COMPLICATIONS:	
PPH	40
DIC	10
ARF	20
SHOCK	10
OTHERS	20

**DISCUSSION**

Abruptio placenta is an obstetric emergency, as it leads to poor maternal outcome as well as as poor fetal outcome. The signs & symptoms of abruptio placenta vary depending upon the severity of bleeding and degree of separation of placenta⁷. Abruptio can occur during any stage of antenatal period but 32-36 weeks of gestation appears to be most crucial period⁸. We found 16% of patients with chronic hypertension, 44% of patients with severe pre-eclampsia, 15% patients with eclampsia, 20% patients were normotensive. Among the maternal complications, PPH was the most commonest followed by acute renal failure, DIC and shock. The major cause of maternal death was renal failure. We found ARF in 20% of cases and shock in 10% of cases. Routine antenatal check up, timely referral, caesarean section if obstetric indication is present, correction of anaemia, transfusion of blood and blood components and good neonatal intensive care unit will help further to reduce perinatal and maternal morbidity and mortality.

CONCLUSION

This study reveals that severe pre-eclampsia, chronic HTN, eclampsia, high parity are independent risk factors of abruptio placenta. Antenatal care and regular antenatal visits helps to identify the risk

factors like HTN disorder in pregnancy which plays important role in decreasing the incidence of abruptio placenta. Diagnosis and intervention on time is needed to decrease morbidity and mortality associated with abruptio placenta. Morbidity will reduce by early detection and effective treatment. For better maternal and fetal outcome a team of skilled obstetricians, intensivists and neonatologist is required.

REFERENCES

1. Saria Dars, Farhat Sultana, Naheed Akhter. Abruptio Placentae: Risk Factors and Maternal Outcomes at a Tertiary Care Hospital. J Liaquat Uni Med Health Sci.2013; 12(3):198-202.
2. Sarwar I, Abbasi AN, Islam A. Abruptio placenta and its complications at Ayub teaching hospital Abbottabad. J Ayub Med Coll Abbottabad.2006;18(1):27-31.
3. Campbell S, lee C Disorders of Placentation. In: Obstetrics by ten teacher 17th ed. Arnold London 2002, p.171-3.
4. Kyrklund-Bloomberg BN, Gennser G, Cnattinguis S. Placental abruption and perinatal death.2001;15:290-7.
5. Abdella TN, Sibai BM, Hays JM, et al. Relationship of hypertensive disease to abruptio placentae. Obstet Gynecol 1984;63(3):365-370.
6. Cunningham, Leveno, Bloom, Hauth. Obstetric haemorrhage, Placental abruption. Mc Graw Hills publishers (New York), 23rd edition, Pg. 761.
7. Ananth CV, Smulian JC. Incidence of placental abruption in relation to cigarette smoking and hypertensive disorders during pregnancy. A meta analysis of observational studies. J ObstetGynecol 1999; 93: 622.
8. Pritchard JA, Cunningham FC. On reducing the frequency of severe abruptio placenta. Am J ObstetGynecol 1991; 165: 1345.
9. Nath CA, Ananth CV. Histological evidence of inflammation and risks of placental abruption. Am J ObstetGynecol 2007; 197: 319.
10. Rasmussens S, Irgens LM. Occurrence of placental abruption in relatives. BJOG 2009; 116: 693.