



## A STUDY OF ANTEPARTUM HAEMORRHAGE AND ITS MATERNAL AND NEONATAL OUTCOME AT TERTIARY CARE HOSPITAL

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### INTRODUCTION:

Antepartum haemorrhage (APH) is an obstetric emergency contributing to a significant amount of perinatal & maternal morbidity and mortality (1). It is defined as bleeding from or into the genital tract after 28 weeks of gestation (2). It occurs in 2-5% of pregnancies and is an important cause of fetal and maternal mortality (3). Thirty percent of maternal deaths are caused by antepartum haemorrhage of which 50% are associated with avoidable factors (4). In India, the prevalence of antepartum haemorrhage is reported to be 18.8% (5). The main causes of APH are placenta previa, abruptio placentae, indeterminate cause or local causes of genital tract.

Placenta previa exists when the placenta is implanted wholly or in part into the lower segment of the uterus. An abruptio placenta is the condition whenever bleeding occurs due to premature separation of a normally sited placenta. Other causes are cervical polyp, cervical carcinoma local lesions of vagina and cervix. Systemic diseases like leukemia & bleeding disorders are rare causes of APH. Placenta previa and Abruptio placentae account for almost half cases of APH (6). During APH, complications can be fetal as well as maternal. The maternal complications are premature labour, postpartum haemorrhage (PPH), sepsis, shock and retained placenta (4) various fetal complications are prematurity, low birth weight, intrauterine death and birth asphyxia (5). In developed countries, maternal mortality due to antepartum hemorrhage has been reduced significantly due to better obstetrical facility and care. But in developing countries like India maternal and perinatal mortality is still very high due to associated problems like anemia, high incidence of untreated pre-eclampsia and under utilization of available health facilities (7).

The present study is of importance to understand the prevalence and aetiology of APH in our institution and to formulate preventive guidelines to improve the obstetric outcome.

### INCLUSION CRITERIA

All patients with bleeding per vaginam after 28 weeks of gestation but before birth of the fetus were included in the study.

### EXCLUSION CRITERIA

Cases with bleeding before 28 weeks and after delivery of the baby were excluded.

### METHODS AND METHODOLOGY:

It is a retrospective study, conducted in our department of obstetrics & gynaecology, at Government Dharmapuri Medical College & Hospital, over a period of 6 months from July 2020 to December 2020. Data was collected from the case record files obtained from record section for retrospective

analysis. 52 diagnosed cases of APH were included in the study.

The diagnosis of cases was made on the basis of history, clinical examination and ultra sonography. All the cases of haemorrhage were grouped as placenta previa, abruptio placenta, others.

### RESULTS:

During our study period 5586 deliveries were conducted out of which 52 cases of antepartum haemorrhage were documented. The incidence of antepartum haemorrhage was found to be 1%. Maximum number of cases were abruptio placentae of about 55.6% (29 cases) and placenta previa contributes to remaining 44.1% (23 cases). There were no reported cases under the category of unclassified APH in our study.

**Table 1: Distribution Of Patient Age.**

TYPE OF APH	20-24 years	25-29 years	30-35 years	>35 years	TOTAL
PLACENTA PREVIA	14(26.9%)	6 (11.5%)	2 (3.8%)	1(1.9%)	23 (44.1%)
ABRUPTION	16(30.7%)	10 (19.2%)	2 (3.8%)	1(1.9%)	29 (55.6%)
TOTAL	30(57.6%)	16(30.7%)	4(7.6%)	2(3.8%)	52 (100%)

The incidence of APH was highest in the age group of 20-24 years (57.6%) and least was >35 years 3.8%.

**Table 2: Distribution Of Patient According To Cause Of Aph:**

TYPE OF APH	NUMBERS	%
Placenta previa	23	44.1%
Abruptio	29	55.6%
TOTAL	52	100%

**Table 3: Distribution Of Patient According To Parity**

TYPE OF APH	PRIMI	G2	>2	TOTAL
Placenta previa	6(11.5%)	11(21.1%)	6(11.5%)	23(44.1%)
Abruptio	11(21.1%)	12(23%)	6(11.5%)	29(55.6%)
TOTAL	17(32.6%)	23(44.1%)	12(23%)	52(100%)

**Table 4: Types Of Placenta Previa**

TYPES	NUMBERS	%
I	9	39%
II	3	13%
III	3	13%
IV	8	34%
TOTAL	23	100%

**Table 5 Grades Of Abruptio Placenta**

GRADES	NUMBERS	%
0	0	0

I	5	17.2%
II	6	20.6%
III	18	62%
TOTAL	29	100%

**Table 6: Comorbidities**

COMORBIDITIES	Placenta previa	abruption	TOTAL
ANEMIA	3(13%)	2(6.8%)	5(9.6%)
PIH	0	7 (24.1%)	7(13.4%)
SEVERE PREECLAMPSIA	0	9(31%)	9(17.3%)
PREVIOUS LSCS	8(34.7%)	5(17.2%)	13(25%)
NIL	12(52.1%)	6(20.6%)	18(34%)

**Table 7: Mode Of Delivery:**

MODE OF DELIVERY	Placenta previa	Abruptio	TOTAL
LABOUR NATURAL	0	10(34.4%)	10(19.2%)
LSCS	23(100%)	19(65.5%)	42(80.7%)

APH was more common in second gravida 44.1%.most common type of placenta previa and abruption in our study group was type 1(39%) and grade 3 abruption (62%) respectively. Maximum APH patients were delivered by c-section (80.7%) compared to vaginal delivery (19.2%).23 patients of placenta previa and 19 patients of abruption underwent c-section. Incidence of abruption is more in severe preeclampsia patients (31%).placenta previa is complicated by previous c-section.

**Table 8: Perinatal Outcome**

PERINATAL OUTCOME	Placenta previa	abruption	TOTAL
ALIVE	23(100%)	12(41%)	35(67%)
STILL BORN	0	2(6.8%)	2(3.8%)
NEONATAL DEATH	0	0	0
IUD	0	15(51.7%)	15(28.8%)
TOTAL	23	29	52(100%)

**Table 9: Blood Transfusion**

BLOOD TRANSFUSION	Placenta previa	Abruptio	TOTAL
YES	15 (65%)	22 (75.8%)	37(71.1%)
NO	8 (34.7%)	7 (24.1%)	15(28.8%)
TOTAL	23	29	52(100%)

**Table 10: Maternal Outcome**

MATERNAL OUTCOME	PLACENTA PREVIA	ABRUPTION	TOTAL
UNEVENTFUL	14(60.8%)	10(34.4%)	24(46.1%)
CESAREAN HYSTERECTOMY	3(13%)	2(6.8%)	5(9.6%)
NEAR MISS	2(8.6%)	4(13.7%)	6(11.5%)
PPH	4(17.3%)	0	4(7.6%)
DIC	0	13(44.8%)	13(25%)
TOTAL	23	29	52(100%)

13% of placenta previa and 7% of abruption patients went for caesarean hysterectomy.45% of patients with abruption went for DIC.Rate of Blood transfusion was more in both scenarios comparably more in abruption.In abruptio placenta 51.7% patient had intrauterine fetal demise and 6.8% still born.

## DISCUSSION

Obstetric hemorrhage remains one of the major causes of maternal death in developing countries(8). In our study incidence of APH was 1% which was in concordant with study conducted by P Rajini et al(9) (1.2%)(9). Incidence of abruption is more common during our study period. The incidence of c-section in placenta previa in our study group was 100%.similar to the study done by Khouri JA & Sultan MG(10)

In this study we found that incidence of APH is more in multigravida (67%) than in primigravida (32%). Other studies

such as Gillium et al and Clark et al have also reported high incidence of APH in multipara.

Statistical comparison of maternal complication with previous studies:

COMPLICATIONS	S.R.Singhal et al	Fouzia Sheikh et al	Present study
Postpartum haemorrhage	21.84%	19%	7.6%
Blood transfusion	78.77%.	77.4%	71.1%
LSCS	43.80%	57.1%	80.7%
Coagulation failure	3.8%	-	25%

The above table signifies that in the maternal complication, PPH (7.6%) is significantly less in the present study as compared to Singhal et al (21.84%) and shrikh et al (19%). The decreased incidence of postpartum haemorrhage in present study may be due to prophylactic measures taken for prevention of PPH like prostaglandin F2 alpha, methyl ergometrine and uterine artery ligation.

Blood transfusion rate is nearly same in all three studies. Incidence of LSCS is lower in present study as compared to the other two studies.

## CONCLUSION:

In our study higher incidence of APH was associated with severe preeclampsia and previous LSCS in abruptio placenta and placenta previa respectively. Severe pre eclampsia contributed to the most common cause which can be prevented by early registration, regular BP monitoring and early referral to higher centre. Timely intervention and early decision plays a vital role in improving the maternal and perinatal morbidity and mortality in case of severe Pre-eclampsia thus reducing the incidence of abruption. In spite of developing many programs for anaemia correction like anaemia mukt bharat, anaemia still contributes one of the major factor for abruption. There is a need for directed efforts for early detection and correction of anaemia in pregnancy. Introduction of availability of injectable iron at rural level and utilization of available scheme for anaemia prevention and correction and good antenatal and postnatal care is most important and it must be ensured to all pregnant females to avoid antepartum haemorrhage.

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