

Original Article**Maternal And Perinatal Outcome Of Ante Partum Haemorrhage (APH) In A Tertiary Care Hospital**

Nikita Gandotra, Shagufta, Shah Nawaz

Abstract:

Background: Antepartum haemorrhage (APH) is an obstetrical emergency that accounts for 3-5% of pregnancies and is a leading cause of maternal and perinatal morbidity and mortality.

Materials And Methods: This retrospective study was conducted in the department of obstetrics and gynaecology ,SMGS Hospital , GMC Jammu over a period of 1 year from 1st January 2022 to 31st December 2022.Data was collected from records kept in the hospital .179 cases of APH were studied during the study period. The maternal baseline characteristics, mode of delivery, pregnancy outcome and obstetrical complications were studied. The study was approved by the Institutional Ethics Committee. The objective of this study was to determine the maternal and perinatal effects of APH.

Results: Majority of the patients (67) were in the age group of 26-30 years (37.43 %).Majority of the patients (62) were primigravida (34.63 %), 47 patients were gravida 2 (26.25 %),41 patients were gravida 3 (22.90 %),18 patients were gravida 4(10.05 %) and 11 patients were gravida 5 and more (6.14 %). Majority of the patients (87) presented at 33-36.6 weeks of gestation (48.60%) followed by more than 37 weeks (39.10 %). Majority of the patients (72) had previous vaginal delivery (40.22 %) followed by primigravida (27.93 %),previous abortions (18.99 %),previous 1 LSCS (15.64 %) and previous 2 LSCS (7.26 %).130 patients had placenta praevia (72.62 %) ,abruption (20.67 %),accreta (3.35 %), Percreta (1.67 %) and increta (1.67 %). Majority of the patients underwent LSCS (75.55 %), LSCS WITH B/L UA Ligation (8.88 %),caesarean hysterectomy (10 %),vaginal delivery (4.44 %)and laparotomy with uterine repair (0.55 %). Majority of the babies had birth weight between 1.5 to 2.5 kg (69.27 %), more than 2.5 kg (24.02%)and <1.5 kg (8.37 %). Apgar score at birth >6 in 87.70%, < 6 in 10.05% and IUD in 3.88%.

Conclusion: APH cannot reliably be predicted. APH is associated with high maternal and perinatal morbidity and mortality. All the cases diagnosed as APH during antenatal period must be considered high risk and proper antenatal management plan should be formulated. In suspected cases of morbidly adherent placenta, senior obstetrician, paediatrician and anaesthetist must be available during delivery. In such cases, a preoperative planning with multidisciplinary approach should be followed. Patient counselling and proper consent should be taken which include possibility of hysterectomy and interventional radiology.

JK-Practitioner2023;28(3-4):11-15**Introduction:**

Obstetrical haemorrhage is the leading cause of maternal mortality in world. [1] PH is defined as the bleeding from or in to the genital tract, occurring from 24+0 weeks of pregnancy and before the birth of the baby.APH complicates 3–5% of pregnancies and is a leading cause of perinatal and maternal mortality worldwide.[2]

The causes of antepartum haemorrhage can be classified as obstetric, local and unclassified. The common causes of APH are placenta praevia, abruption placentae and the other causes include cervical polyp, carcinoma cervix, vasa praevia, local trauma, condylomata etc.[3,4] When placenta is implanted wholly or partially in the lower uterine segment, it is defined as placenta praevia. Risk factors for placenta praevia include previous history of placenta praevia,

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APH, Haemorrhage, Hystrectomy, Morbidity, LSCS

multiparity, previous history of miscarriages both induced and spontaneous, advanced maternal age, fibroid uterus, previous uterine scars such as myomectomy, evacuation of retained products of conception .[5] Studies have also shown that large size of the placenta, as seen in multiple pregnancy, severe anaemia, diabetes mellitus, smoking and polyhydramnios are associated risk factors for placenta praevia.

Placental abruption refers to premature separation of a normally situated placenta before the delivery of the baby. Risk factors for abruption are previous history of abruptio placentae, hypertensive disorders of pregnancy, polyhydramnios, multiparity, mal presentation, abdominal trauma have been implicated. [5]

Antepartum haemorrhage (APH) complicates about 2-5% of all the pregnancies.[6] Incidence of placenta previa at term is approximately 0.5%.Approximately 0.5-1% of all pregnancies are complicated by abruption.

Because of increase in the caesarean section rates, there is an increase in the incidence of placenta praevia and morbidly adherent placenta.

Recently, the use of ultrasound for placental localisation, diagnosis of abruption placenta, improved obstetrical and anaesthetic facilities, availability of blood transfusion and advanced neonatal care facilities increased survival of a preterm infant. The maternal complications include mal presentations, premature labour, postpartum haemorrhage (PPH), sepsis, shock and retained placenta, peripartum hysterectomies, coagulation failure and even death. Various fetal complications include preterm baby, low birth weight, intrauterine death, congenital malformations and birth asphyxia. The frequency of these complications depends on the amount of haemorrhage and gestational age at the time of delivery.

The objective of this study was to determine the maternal and perinatal effects of APH.

Materials and Methods

This retrospective study was conducted in the department of obstetrics and gynaecology, SMGS Hospital , GMC Jammu over a period of 1 year from 1st January 2022 to 31st December 2022. Data was collected from records kept in the hospital .179 cases of APH were studied during the study period. The maternal baseline characteristics, mode of delivery, pregnancy outcome and obstetrical complications were studied. The study was approved by the Institutional Ethics Committee.

Inclusion criteria:

All cases of APH with gestational age more than 24 weeks.

Exclusion criteria:

1. Women with gestational age less than 24 weeks.
2. Women diagnosed with any bleeding disorder.
3. Women with bleeding from sources other than uterus.

Results

Table 1: Age wise distribution of patients.

Age	Number	Percentage
21-25 years	57	31.84
26-30 years	67	37.43
31-35 years	38	21.22
> 35 years	11	6.14
< 20 years	6	3.35

In our study, majority of the patients(67) were in the age group of 26-30 years (37.43 %) followed by 21-25 years(31.84 %) , 31-35 years (21.22 %),>35 years (6.14 %) and <20 years (3.35 %).

Table 2: Distribution of patient according to parity

Parity	Number	Percentage
PRIMI	62	34.63
G2	47	26.25
G3	41	22.90
G4	18	10.05
>G5	11	6.14

Majority of the patients (62) were primigravida (34.63 %), 47 patients were gravida 2 (26.25 %), 41 patients were gravida 3 (22.90 %), 18 patients were gravida 4(10.05 %) and 11 patients were gravida 5 and more (6.14 %).

Table 3: Distribution of patients according to gestational age

GA	Number	Percentage
28-32.6 WEEKS	22	12.29
33-36.6 WEEKS	87	48.60
> 37 WEEKS	70	39.10

In our study, majority of the patients (87) presented at 33-36.6 weeks of gestation (48.60%) followed by more than 37 weeks (39.10 %).

Table 4: Distribution of patients according to obstetric history.

OH	Number	Percentage
PRIMI	50	27.93
PREVIOUS ABORTIONS	34	18.99
PREVIOUS 1 LSCS	28	15.64
PREVIOUS 2 LSCS	13	7.26
PREVIOUS VD	72	40.22

Majority of the patients (72) had previous vaginal delivery (40.22 %) followed by primigravida (27.93 %),previous abortions (18.99 %),previous 1 LSCS (15.64 %) and previous 2 LSCS (7.26 %)

Table 5: Causes of APH.

CAUSE	NUMBER	PERCENTAGE
PLACENTA PRAEVIA	130	72.62
ABRUPTION	37	20.67
ACCRETA	6	3.35
PERCRETA	3	1.67
INCRETA	3	1.67

In our study, 130 patients had placenta praevia (72.62 %), abruption (20.67 %), accreta (3.35 %), percreta (1.67 %) and increta (1.67 %).

Table 6: Types of placenta praevia

OTYPE	NUMBER	PERCENTAGE
1	8	4.46
2	30	16.75
3	15	8.37
4	80	44.69

Table 7:Risk factors.

RISK FACTORS	NUMBER	PERCENTAGE
PIH	20	11.17
PREECLAMPSIA	5	2.79
ECLAMPSIA	2	1.11
GDM	16	8.93
MULTIPLE PREGNANCY	3	1.66
MALPRESENTATION	10	5.58
HYPOTHYROIDISM	7	3.88

Table 8:Mode of delivery

MODE OF DELIVERY	NUMBER	PERCENTAGE
EM/EL LSCS	136	75.97
EM LSCS WITH B/L UA Ligation	16	8.93
CH	18	10.05
VD	8	4.46
LAPAROTOMY WITH UTERINE REPAIR	1	0.55

Majority of the patients underwent LSCS (75.55 %), LSCS WITH B/L UA Ligation (8.88 %), caesarean hysterectomy (10 %), vaginal delivery (4.44 %)and laparotomy with uterine repair (0.55 %).

Table 9:Birth weight distribution.

EFW	NUMBER	PERCENTAGE
<1.5 KG	15	8.37
1.5 -2.5 KG	124	69.27
>2.5 KG	43	24.02

Majority of the babies had birth weight between 1.5 to 2.5 kg (69.27 %), more than 2.5 kg (24.02%)and <1.5 kg (8.37 %).

Table 10:Apgar score at birth.

A/S	NUMBER	PERCENTAGE
<6	18	10.05
>6	157	87.70
IUD	7	3.91

Apgar score at birth >6 in 87.70% ,< 6 in 10.05 % and IUD in 3.91 %.

Discussion

APH is the most common life threatening condition. This retrospective study was carried out on 179 patients who presented with antepartum haemorrhage in the department of obstetrics and gynaecology ,SMGS Hospital , GMC Jammu over a period of 1 year from 1st January 2022 to 31st December 2022.Majority of the patients were un booked and were from low socioeconomic status. In our study, majority of the patients(67) were in the age group of 26-30 years (37.43 %) which is similar to study conducted by Kulkarni et al[7] and Yadav et al.[8] Incidence of APH were more common in multigravida (65.36 %) followed by primigravida (34.63 %). which was comparable to Adekanle, et al.[9] with 75.2% multipara and 24.8% nullipara. Thus, confirming the role of endometrial damage caused by repeated childbirth, a risk factor for uteroplacental bleeding in pregnancy.[10]

In our study, majority of the patients (87) presented at 33-36.6 weeks of gestation (48.60 %) followed by more than 37 weeks (39.10 %). Bhandiwad, et al.[11] who reported that 70% of cases of placenta previa had a gestational age of 28-32 weeks .Whereas in the study done by Archana, et al.[12], 63% of patients had gestational age \geq 37 weeks . Majority of the patients (72) had previous vaginal delivery (40.22 %) followed by primigravida (27.93%), previous abortions (18.99 %),previous 1 LSCS (15.64 %) and previous 2 LSCS(7.26 %).

In our study, 28.07 % patients had history of previous LSCS which is less than study conducted by Purohit A, et al. (40%) . [13] In our study, 18.88 % had history of previous abortions, In Bako, et al. [14] 43.8% showed high incidence of prior abortion history, Purohit et al (16%) showed low incidence, Taylor et al [15] who reported that 30% patients of placenta previa had a previous abortion .Previous history of caesarean section, prior abortions and dilatation and curettage increases the risk of placenta previa due to decreased vascularity noted in fibrosed tissues.

Majority of the patients were presented with bleeding per vaginum followed by abdominal pain.

In our study, 130 patients had placenta praevia (72.62 %) followed by abruption(20.67 %),.which is similar to study done by Yadav et al.,but in the study done by Takai et al, [16] abruptio placentae were the most

common cause. 12 patients had Morbidly adherent placenta [accreta (3.35 %), percreta (1.67%) and increta (1.67 %)]. Majority of the patients underwent LSCS (75.97 %), LSCS WITH B/L UA Ligation (8.93 %). 75.97 % of the patients underwent LSCS, most of them were emergency LSCS. These findings are comparable with the study conducted by Yadav et al and Khouri et al. [17]

Early and timely caesarean section improves perinatal outcome in patients with abruption .

In our study, 18 patients underwent caesarean hysterectomy (10 .05%), vaginal delivery (4.46 %) and laparotomy with uterine repair (0.55 %). 2 patient underwent bladder repair.

In our study, postpartum haemorrhage was the most common complications in patients with antepartum haemorrhage which was observed in 23 % cases which is similar to the study conducted by Chakraborty, et al [18] who reported 16.2% incidence of PPH .25 patients (13.96 %) underwent haemorrhagic shock. Anaemia was present in 54 % of cases and require blood transfusion. 109 patients (60.89 %) underwent preterm delivery (60.89 %). No maternal mortality was reported in our study.

Majority of the babies had birth weight between 1.5 to 2.5 kg (69.27 %) , more than 2.5 kg (24.02 %) and <1.5 kg (8.37 %). Apgar score at birth >6 in 87.70 % , <6 in 10.05 % and IUD in 3.88 %.

Prematurity was the most common complication. Therefore, early detection of high risk patients with regular antenatal care, timely diagnosis and proper management, timely caesarean section with availability of blood and blood products, good neonatal intensive care unit will help to lower the perinatal and maternal morbidity and mortality.

Conclusion

APH cannot reliably be predicted. APH is associated with high maternal and perinatal morbidity and mortality. Ultrasound can be used for the diagnosis of placenta praevia, but ultrasound scan does not exclude abruption. Placental abruption is a clinical diagnosis and no sensitive or reliable diagnostic tests are available. All the pregnant women should be aware of regular antenatal check-up, iron and folic acid supplementation, adequate nutrition, correction of anaemia during antenatal period, importance of institutional delivery, family planning and immunization.

All the cases diagnosed as APH during antenatal period must be considered high risk and proper antenatal management plan should be formulated. In suspected cases of morbidly adherent placenta, senior obstetrician, paediatrician and anaesthetist must be available during delivery. In such cases, a preoperative planning with multidisciplinary approach should be followed. Patient counseling and proper consent should be taken which include possibility of hysterectomy and interventional radiology.

Various government programs including the recent Pradhanmantri Surakshit Matrutya Abhiyan and

previously schemes like Janani Suraksha Yojana should be followed.

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