INTRODUCTION

Antepartum haemorrhage (APH) has always been one of the most feared complications in obstetrics.

APH is defined as any bleeding from or into the genital tract after the period of viability, but before the birth of the baby.1 On an average 2 to 5% of all pregnancies are complicated by antepartum haemorrhage.1,2

The main cause of APH is placenta previa and abruption placenta. In a small proportion where placenta previa and abruption have been excluded, the cause may related to local lesions of the cervix and vagina, e.g. cervicitis, cervical erosion, genital tumours, vaginal varicosities, rupture of vasa previa and heavy show. The prevalence is approximately 0.5% of all pregnancies, and this increase correlates to the elevated cesarean section rate.3

Abruption is more likely to be related to condition occurring during pregnancy (preeclampsia, abdominal trauma, intrauterine infections, premature rupture of membranes, polyhydramnios, smoking and substance abuse) and placenta previa related to condition existing prior to the pregnancy (uterine scar manual removal of placenta, curettage, advanced maternal age, multiparity and previous placenta previa).

The maternal complications in patients with APH are malpresentations, preterm labour, postpartum haemorrhage, septic, shock and retained placenta. Various fetal complications are preterm birth, low birth weight, intrauterine death, congenital malformations and birth asphyxia.

In developing countries, wide spread pre-existing anemia, difficulties with transport, restricted medical facilities,
decrease awareness in part of patients are responsible for high maternal mortality rate (MMR). Obstetrical haemorrhage along with hypertension and infections is one of the infamous triad of causes of maternal death in both developed and developing country. Prompt diagnosis, resuscitation and management are essential to save the mother and the fetus.

Objective of the study were to study the prevalence of APH at tertiary care hospital, to assess the importance of early diagnosis and treatment, to study the maternal and fetal outcome in APH and to study the associated risk factor contributing to maternal and fetal morbidity and mortality.

METHODS

A retrospective study was conducted from August 2018 to June 2019 at tertiary care centre.110 cases of bleeding per vaginal (pv) after 28th weeks of gestation were studied for fetomaternal outcome. Informed consent was taken from all patients.

Inclusion criteria

Any bleeding from or into the genital tract after 28th week of pregnancy and before birth of baby.

Exclusion criteria

Patient with bleeding due to any another cause (bleeding disorder).

Antenatal patients with bleeding pv less than 28th week of gestation.

Source of bleeding other than uterus.

Female fulfilling the above criteria were included in study. Detailed history was taken and clinical examination was done, including general examination, per abdominal examination, per speculum examination and pv examination (when required). Basic obstetrics ultrasound was done to know fetal well-being, gestational age, amniotic fluid and most importantly for localization of placenta and to see any blood collection behind the placenta. Various blood and other investigations were carried out like complete blood count, coagulation profile, renal function test, liver function test, lactate dehydrogenase (LDH), uric acid, and urine albumin. Subsequent management was done according to the type of APH (i.e. placenta previa, and abruption placentae), severity and type of bleeding and gestational age.

RESULTS

110 cases of APH were analyzed in which 35.45% cases were of placenta previa, 53.63% cases were of abruptio placentae and 10.90% were indeterminate.

In current study it was found that pregnancy-induced hypertension (PIH) was more associated with placental abruption rather than that of placenta previa.

During current study it was also found that no cases of placenta previa were delivered vaginally, while in cases of placenta abruption rate was of normal vaginal delivery was of 35.59% (21 case).

- **Table 3:** Mode of delivery.

- **Table 4:** Maternal complications.
cases had concealed haemorrhage, 25.42% cases had revealed haemorrhage and 54.23% had mixed type of haemorrhage.

Pregnancy-induced hypertension (PIH) was present in majority cases of placental abruption i.e. 35.59% while only 5.21% cases of placenta previa had PIH, comparable to study done by Tyagi, Yadav, Sinha and Gupta in which 11% cases of placental abruption had PIH (Table 2).8

In current study 70% cases of APH were delivered by lower segment cesarian section (LSCS) and 19.09% cases by vaginal route.100% cases of placenta previa were delivered by LSCS, where as in case of placental abruption 64.40% were delivered by LSCS and 35.59% cases by vaginal route. The above result of mode of delivery is comparable to Maurya et al study in which there is 94.3% LSCS rate in APH (Table 3).4

In our study 22.72% fetus had required neonatal intensive care unit (NICU) admission (28.20% in placenta previa) and 17.27% was performed in placenta previa, which is similar to the study of Nasreen et al in which incidence was 5% (Table 5).9

Blood transfusion was required intraoperatively in 70.90% of total APH patients with 84.61% of placenta previa and 76.27% of placental abruption cases requiring blood transfusion. Bilateral (B/L) uterine ligation was performed in 19.09% cases of APH, 23.07% in placenta previa and 20.33% in placental abruption. Caesarean hysterectomy was performed in 4.54% cases of APH and all were performed in placenta previa, which is similar to the study of Nasreen et al in which incidence was 5% (Table 5).9

DIC was present in 19.09% cases of APH, 23.07% in placenta previa and 20.33% in placental abruption. Caesarean hysterectomy was performed in 19.09% cases of APH, 23.07% in placenta previa and 20.33% in placental abruption. In current study placental abruption was more common in primis as compared to placenta previa (33.89% in placental abruption and 20.51% in placenta previa), also in studies of Arora et al, Pandey et al and Maurya et al study abruption was more in primigravida (Table 1).4,5

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In current study 6.36% cases of APH had argon plasma coagulation (APC) less than 1,00,000 out of which 5.12% cases in placenta previa and 8.47% in placental abruption, also in majority cases prthrombin time (PT) >14 sec i.e. 45.45% cases of APH (58.97% in placenta previa and 45.76% in placental abruption) (Table 7).

CONCLUSION

APH cannot reliably be predicted. It is major cause of maternal and perinatal mortality and morbidity. Multidisciplinary approach and senior input is necessary in making decision about timing and mode of delivery.
Presently increase in use of ultrasonography for placental localisation and to diagnose abruption, improved obstetrician and anesthetist facilities, increase in use in blood products to correct anemia and advanced neonatal care facilities, all of these have played important role in decreasing perinatal as well as maternal mortality and morbidity.

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**REFERENCES**
