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Prospective Observational Study On Maternal And Perinatal Outcome In Antepartum Haemorrhge

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INTRODUCTION–Antepartum hemorrhage is an obstetric emergency contributing to significant amount of perinatal and maternal mortality.APH is defined as any bleeding from the genital tract between 24 weeks of gestation and delivery of the baby. Maternal consequences of antepartum hemorrhage are grave including shock, postpartum hemorrhage, coagulation failure, preterm labour, and increased rate of cesarean section.
AIMS AND OBJECTIVE-This study was done with the objective of studying the maternal and perinatal outcome in antepartum hemorrhage.
MATERIAL AND METHODOLOGY - A three year prospective observational study was conducted in Department of Obstetrics and Gynecology at MGM medical college and MYH hospital indore in women with antepartum hemorrhage between January 2018 to January 2021 .The study group includes 840 patients antepartum hemorrhage who admitted with complain of bleeding per vaginum in late pregnancy. Record of mode of delivery, associated maternal and perinatal complications were noted.
RESULT - Total 840 cases were admitted, 270 were placenta previa ,510 was abruption placentae, out of which 390 have LSCS, 450 delivered vaginally. In majority of LSCS done the indication was placenta previa240/390. Obstetric Hysterectomy was done in 3 patient and postpartum hemorrhage with severe anemia in abruption placentae was the indication.30 patients landed in AKI due to abruption.
CONCLUSION- In developing countries, like India, APH contributes a major part, there was very high maternal morbidity with increased rates of anemia and postpartum hemorrhage. Hence Universal institutional antenatal care of all women should be targeted to improve their general health, family planning and limitation of births should be encouraged along with focused multidisciplinary approach and facilities can improve maternal and perinatal outcome in APH.

1. INTRODUCTION

Antepartum hemorrhage is an obstetric emergency contributing to a significant amount of perinatal and maternal morbidity and mortality. Antepartum hemorrhage is defined as bleeding from or into genital tract after the period of viability of extrauterine survival until delivery of baby[1]. The World Health Authority defines antepartum hemorrhage as bleeding

after 28th week of pregnancy[2]. It Occur in two to five percent of pregnancies and is an important cause of fetal and maternal death. In addition to maternal morbidity secondary to acute haemorrhage and post operative delivery, the fetus may be compromised by uteroplacental insufficiency, premature birth and perinatal death[3]. Atleast 30% of the maternal deaths are caused by antepartum haemorrhage of which 50% are associated with avoidable factors. In developing countries like India women frequently experiences adverse effects of obstetric hemorrhage due to widespread pre – existing anemia difficulty with transport and proper health facility.

Cause of antepartum hemorrhage an be divided into three main groups-

- Placenta Previa
- Placental Abruption
- Other or extra placental causes (injury to genital tract , cervical polyp, cervical etopy , cervical erosions , cancer of cervix cervicitis , varicosities (vaginal, vulval and cervical) vaginal infections , foreign bodies, genital laceratins, bloody show, degenerating uterine myomata ,vasa previa and marginal placenta separation.

Placenta previa exist when the placenta is implanted wholly or in part in to the lower segment of the uterus[4].Incidence is 4-5 per 1000 pregnancies[5, 6]

Placenta previa is classified as:[2]

1 Type 1 or Low lying: Encroaches lower uterine segment but does not reach internal os
2 Type 2 or Marginal: Reaches margin of the internal os but does not cover it.
3 Type 3 or Partial: Partially covers the internal os
4 Type 4 or Total or Central: Completely covers the internal os

Its link to cancer has been demonstrated in a number of research with following[7,8]

- Maternal age (>40 years) is advanced.
- Multiplicity
- Previously, there was a placenta previa.
- Endometrium deficiency due to the presence or history of uterine scarring (prior caesarean section, pregnancy termination followed by curettage), endometritis, manual placenta removal, or submucous fibroid.
- Smoking and multiple pregnancies

Placental abruption is the detachment of the placenta from its implantation site, either partially or completely, before delivery. Haemorrhage into the decidua basalis causes retroplacental hematoma, which starts the process. Impairment of trophoblastic invasion and future atherosclerosis are linked, and inflammation or infection may also play a role.[2] It may occur in pre eclampsia ,low body mass index, multiparity, polyhydramnios, intrauterine infection, premature rupture of membrane, polyhydramnios, abdominal trauma, smoking , drug misuse, pregnancy following assisted reproductive techniques and maternal thrombophilias.[8]

Spotting staining streaking or blood spotting noted on undergarments or sanitary protection.

- Minor hemorrhage: blood loss less than 50 ml that has settled.
- Major hemorrhage: blood loss of 50- 1000ml with no signs of clinical shock.
- Massive hemorrhage: blood loss greater than 1000 ml with signs of clinical shock.

Risk factor for placenta previa (RCOG) previous cesarean sections (RR2.6%, 95% CI 2.3-3.0 with a background rate of 0.5%),one previous cesarean section OR2.2,TWO previous cesarean section OR4.1%, three previous cesarean section OR22.4, previous termination of pregnancy, multiparity, advanced maternal age more than forty years, multiple pregnancy

,smoking. Deficient endometrium due to presence of history of Uterine scar, endometriosis, manual removal of placenta, Curettage, submucous fibroid ,assisted conception.

Maternal complications of APH: Malpresentation, preterm labour, postpartum hemorrhage, shock, retained placenta, severe anemia, higher rates of cesarean section, peripartum hysterectomy, coagulation failure, dissemination intravascular coagulation, puperperal infections and subinvolution, prolonged hospital stay, acute tubular necrosis psychological sequelae need for assist ventilation even death.

Fetal Complications: Fetal complications are premature delivery, low birth weight, intrauterine death, congenital malformations and birth asphyxia. The latter is due to placental separation or hypertension in mother as a result of hemorrhage. Antepartum hemorrhage may frequently results in low birth weight babies. This can be an effect of preterm labour or repeated small events of hemorrhage causing chronic placental insufficiency and fetal growth retardation. The overall perinatal mortality increases to between 4 and 8%[9]

2. MATERIAL AND METHODOLOGY

This is a prospective observational study carry out over a period of three years conducted in Department of Obstetrics and Gynecology at MGM Medical College and MYH Hospital, Indore in women with antepartumhemorrhage. Over 840 cases on all the women admitted with complain of bleeding per vaginum in late pregnancy. Record about mode of delivery, associated maternal complications, preeclampsia, postpartum hemorrhage, need of blood transfusion, need of obstetric hysterectomy, ICU admission, duration of ICU stay. Perinatal outcome in-terms of maturity, birth weight, perinatal mortality and NICU admission, duration of NICU stay. Data was collected and result is shown in tables and graphs .Analysis was done using micosoft excel.

Maternal outcome

From 840 cases 270 were of placenta previa, 510 was abruptio placenta, 60 undermine. Out of which 840 cases 390 have LSCS, 450 delivered vaginally. In majority of LSCS done the indication was placenta previa 240/390. Obstetric hysterectomy was done in three patient and indication was postpartum hemorrhage with severe anaemia in abruptio placentae. 120 became severely anemic, 360 moderately anemic and 360 have mild anaemia.

Post Delivery 30 patients land up into acute kidney injury due to abruption and 24 people have coagulopathy. Duration of ICU stay was higher with abruption and placenta previa.30 patient need assisted ventilatory support and 120 need advance life support in terms of inotropic support with intranasal oxygen. 30 patients needs massive blood transfusion. Majority recovers with pack cell and fresh frozen plasma.

Perinatal outcomes prematurity was higher in placenta previa then abruption. Birth asphyxia is more common in abruptio placenta then placenta previa. Out of 840 delivery 60 have macerated IUD, 120 have stillbirth, Preterm was 270, neonatal death 60, birth asphyxia 30, with t5he mother 300.

Fig No. 01: Number of cases according to type of APH

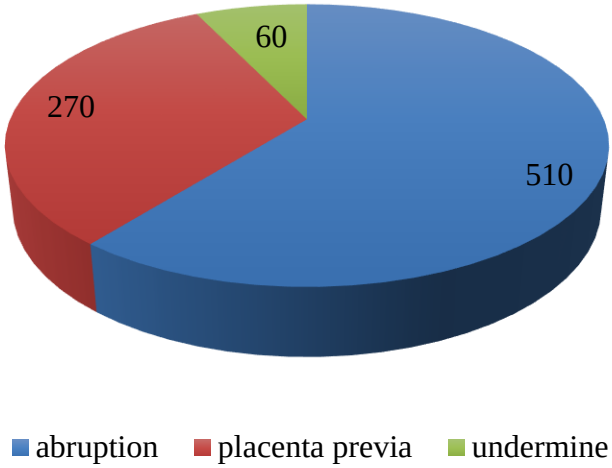


Fig No. 02: Distribution of cases according to mode of delivery

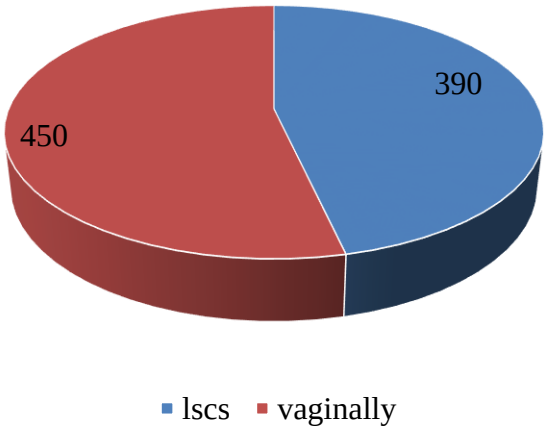
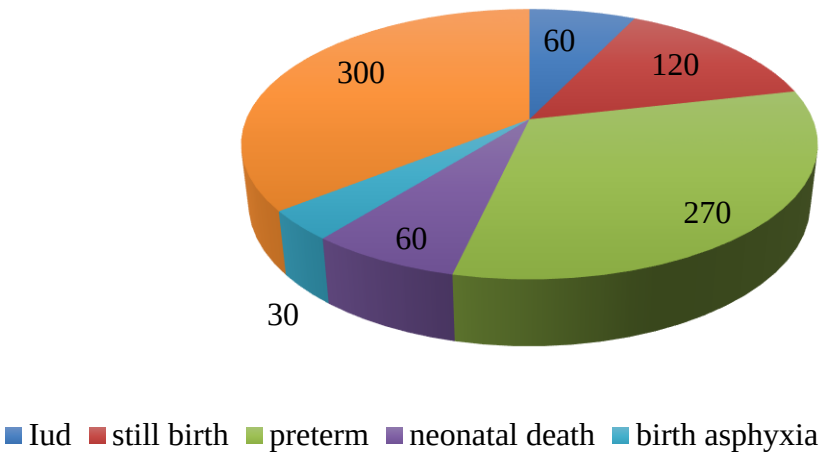


Fig No. 03: Distribution of cases according to perinatal outcome



3. DISCUSSION

Mean age of patients presented with a APH in this study is 26 to 30 years. Similar finding was seen in study done by doctor Himang Jari et al [10]. Incidence of PPH is more in multigravida 72% then in primigravida 28% in our study , Familiar study by doctor Himang Jari et al [10]. 71.43% patients multigravida and primigravid. This support that cause is endometrial damage from repeated childbirth a risk factor for uteroplacental bleeding. In my study from 840 cases 270 of placenta previa , 510 was abruptio placentae, 60 undermine. Similar study conducted by Tyagi et al.[11] on 100 cases majority was placenta previa 80,abruption was 20 unknown was one. Similar study conducted by Idrisusmanusman et all out of 224 patients abruptio placenta and placenta previa constituting 68.3 percent and 30.0 percent respectively[13]. According to Ambarisha Bhandiwad et al[12] significant association was observed between FHR and groups. Fetus with good FHR was seen in 70% of placenta previa where is fetus with reduced FHR was seen in 47.8 percent in abruptio placentae. Similar study Fan ,D, Wu,S., Lui, L. et al.[13] Out of all cases 80% was presented previa and 19% abruptio placenta.

In my study out of 840 delivery 60 have macerated IUD, 120 have still birth, preterm was 270, neonatal death 60, birth asphyxia 30, with mother 300.

Perinatal mortality inplacenta previa was 22% and perinatal mortality in abruptio placentae was 35%. Similar study Sandy us at all. Out of all cases 80% was placenta previa 19%Abruptio placenta. Perinatal outcome was poor in abruptio placenta as compared to 47.3 percent perinatal mortality in abruptio placenta is again 40% in placenta previa. Scarring of uterus due to previous surgery stand out as a one-off major II a logical factor for 8th especially placenta previa. Similar study Takai et al, was conducted in which 68.3 % cases were of abruption placentae and 30% cases of placenta previa , following 123 live births and 92 still birth and maternal mortality all in abruption placentae group .In the present study 60% cases have pregnancy induced hypertension suggesting it is one of the major cause resulting in abruption. Rate of cesarean section in present study was 40%. Out of which 88% was done in placenta previa. Main indication was placenta previa other was failed induction

fetal distress due to abruption. Requirement of blood transfusion was high as most of the patients were anemic at the time of admission some due to blood loss during surgery.

4. CONCLUSION

In conclusion there was very high maternal morbidity with increased rates of anaemia postpartum haemorrhage blood and blood products transfusion cesarean section rates preterm deliveries and prolonged postoperative stay. Similarly perinatal morbidity was hanged including preterm deliveries including low birth weight birth asphyxia leading to an ICU admission for variable periods. Better antenatal services increased awareness improve transportation and improved nutritional state status will help in reducing maternal morbidity. In developing countrieslike India, APH contributes a major part, there was very high maternal morbidity with increased rates of anemia and postpartum hemorrhage. Hence Universal institutional antenatal care of all women should be targeted to improve their general health, family planning and limitation of births should be encouraged along with focused multidisciplinary approach and facilities can improve maternal and perinatal outcome in APH.

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