ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

PLACENTA PREVIA: INCIDENCE, RISK FACTORS, MATERNAL HEALTH AND FETAL OUTCOME AT GGH KADAPA

KEY WORDS:

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ABSTRACT

Background: Placenta previa is a potential risk factor for Obstetric haemorhage, which is a major cause of fetomaternal morbidity and mortality in developing countries. **Objective:** The objective of the study was to determine the incidence, Obstetric risk factors, Obstetric management, Maternal mortality and morbidity, Perinatal outcome in women presenting with Placenta previa. **Methods:** Prospective study of Placenta previa and risk factors, Maternal health and fetal outcome between June 2021 to May 2022 July at GGH Kadapa. **Result:** In this study 0.64% of the deliveries were complicated with Placenta previa, among them 24% women were above 30years of age and 81.3% were multigravldas. 61.1% had major degree placenta previa, 38.8% had prior caesarean deliveries, 7.4% had prior abortion, 38.8% preterm deliveries, 85.1% cases delivered by caesarean delivery, 12.9% cases had postpartum haemorrhage and 5.5% had adherent placenta. There were 83.3% ICU admissions. **Conclusion:** Advancing maternal age, Multiparity, prior caesarean section and prior abortions are independent risk factors for placenta previa. Placenta previa remains a risk factor for adverse maternal and perinatal outcome. The detection of placenta previa should encourage a careful evaluation with timely delivery to reduce the associate maternal and perinatal complications.

INTRODUCTION

Placenta previa is an obstetric complication characterized by placental implantation into the lesser segment of the uterine wall, covering whole(major) or part (minor) of the cervix. About one third of the antepartum haemorrhage belongs to placenta previa.Incidence of placenta previa is 4-5/1000 of all term pregnancies.The most characteristic event in placenta previa is painless haemorrhage, which usually does not appear until near the end of the second trimester or after. The classical features of bleeding in placenta previa are sudden onset, painless, apparently causeless and recurrent. Placenta previa is associated with increased maternal morbidity and mortality shock, increased operative interventions and sepsis.There is increased incidence of perinatal mortality and morbidity due to incidence of preterm delivery and its related complications like low birth weight ,birth asphyxia and neonatal sepsis.

Aims & Objectives :-

To study the incidence and risk factors of placenta previa. To study the effects of placenta previa on maternal health and fetal outcome.

METHODS :-

The study was conducted in the department of Obstetrics and Gynaecology at a tertiary care teaching hospital Government General Hospital in Kadapa district, Andhra Pradesh state . It was a prospective observational study over a period of 12 months from June 2021 to May 2022.

Inclusion Criteria:

All diagnosed cases of placenta previa beyond 28 weeks of gestational age.

Exclusion Criteria:

Women diagnosed with placenta abruption were excluded to and avoid misdiagnosis of placenta previa

Sample size: 54

METHODOLOGY

Women fulfilling the selection criteria were included in the study, taking consent patient name, age, husband's name, socioeconomic status, residential address were recorded. Details of their age, parity, gestational age and clinical features at presentation, detailed history of current pregnancy and previous pregnancies , period of gestation at which placenta previa was diagnosed ,history of warning signs of bleeding etc.. are documented.

Duration of hospitalization, need for blood transfusion, period of gestation at delivery,route of delivery (vaginal or caesarean),need for extra surgical care during operative delivery to prevent or to stop bleeding like cervico-Isthmia stitch, uterine artery ligation, stepwise devascularisation and hysterectomy and need for ICU admission, are noted down. An analysis of maternal mortality and morbidity has been done with respect to development of hypovolemic shock, DIC, anemia, acute kidney injury, septicemia and maternal death. For the newborn gestational age, at delivery, APGAR score, birth weight, need for NICU admission, still birth rate, neonatal mortality rate, presence of Congenital anomalies are noted down. Both mother and baby are followed up throughout the period of their hospitalization till discharge.

RESULTS

During the study period, there were 8361 deliveries, of which, 0.64% were complicated with placenta previa.

The age distribution of present study group is shown in Table 1.Nearly one fourth of women are above 30 years.

Age distribution 00

Age	Number	Percentage
<20 years	5	9.2
20-24 years	16	29.6
25-29 years	20	37
30 years and above	13	24

In the present series there are 10 primis(185%) ,12(22.2%) second gravidas, 19 (35.1%) third gravidas,12(22.2%)fourth gravidas, 1 (1.8%) fifth gravida. more than three fourth of women in this study are Multigravida (81.3%).

Type of placenta previa depending on the location (noted either by placental localization by ultrasound or previa noted during Caesarean delivery for some other indication , where ultrasound had failed to notice placenta previa) is shown in Table 2.There were 33(61.1%)cases of major degree placenta previa in the present series .

Table 2: location of placenta (by USG and intraop findings)

Type of placenta	Number Anterior	Posterior	Percentage Anterior	Posterior
Type 1	9	5	16.6%	9.2%
Type 2	7	6	12.9%	11.1%
Type 3	10	4	18.5%	7.4%
Type 4	13		24%	
Total	54			

19 cases (35.1%) admitted with history of bleeding per vagina, further 13 (24%) developed bleeding. After admission, in 6 (11.1%) cases placenta previa was diagnosed during clinical examination or Caesarean delivery. 15 (27.7%) cases stayed for more than a week in the hospital after diagnosis of placenta previa.

In the present series there were 18 (33.3%) cases with one prior cesarean delivery, 3 (5.5%) cases with 2 prior Caesarean delivery 4 (7.4%) had prior abortion and 1(1.8%) case had prior manual removal of placenta.46 (85.1%) cases delivered by Caesarean delivery, 8 (14.8%) cases delivered by Vaginal route, 7 (12.9%) cases delivered prior to 32 weeks, 15(27.7%) cases delivered between 32-37 weeks and 32 (59.2%) cases delivered after 37 completed weeks.

7(12.9%) cases had postpartum haemorrhage and 3 (5.5%) had adherent placenta. Additional Surgical procedures carried out to control bleeding . 2 (3.7%) cases had B-lynch stich,1 (1.8%) had uterine artery ligation.

In present series total 46(85.1%) cases received blood and blood product transfusions. Among them 11(23.9%)had received one unit transfusion whereas 35(76.1%)required transfusion of more than one unit.

There were 45 (83.3%) ICU admissions ,1(1.8%) case of septicemia.

Neonatal Outcome

FACTORS	NUMBER	PERCENTAGE
GESTATIONAL AGE		
28-32 weeks	7	12.9%
33-36 weeks	15	27.7%
>37 weeks	32	59.2%
BIRTH WEIGHT		
<1.5 Kg	4	7.4%
1.5-2.4 Kg	10	18.5%
2.5-3.4Kg	36	66.6%
>3.5Kg	4	7.4%
APGAR Score(<7 in 5 minutes)	7	12.9%
New admissions	16	29.6%
Preterm birth	22	40.7%
Still birth	1	1.8%
Early neonatal death	7	12.9%
Congenital anomaly	1	1.8%

DISCUSSION

Placenta previa is one of the dreaded complications in obstetrics due to its associated adverse maternal and perinatal outcome. increasing age and number of pregnancies have been shown to be an important risk factor for placenta previa In this study nearly one forth of women were above 30 years of age and more than three fourth of women were multiparas. These results are comparable with the study done by wha Netal,Wu set al.

26.4% of women were managed by Macafee and Johnson protocol, which includes bed rest, periodic blood investigation and cross matched blood ready, watch on vaginal bleeding, frequent fetal surveillance with USG, steroid prophylaxis if gestation is less than 34 weeks. It causes decrease in perinatal mortality.

Regarding previous obstetric history 38.8% had Prior Caesarean delivery and 7.4% had prior history of check curettage. After adjustment, Caesarean section at first remains associated with increased incidence of placenta previa and previous history of abortions have been significantly associated with up to three times risk of placenta previa. In present study 85.1% cases underwent Caesarean delivery, main indications, being major degree placenta previa, when patient is in exsanguinated state due to bleeding or for other obstetric Indications results are comparable to a study conducted by Anand et al.

There were 7 cases of postpartum hemorrhage cases in this study, out of which 3 cases were managed by conservative surgical measures like B-lynch stitch(3.7%) and uterine artery ligation (1.8)%

Regarding maternal complication, there is increased rate of postpartum hemorrhage, multiple unit blood and blood product transfusions, ICU admissions, acute kidney injury which are attributable to placenta previa. This fact is substantiated by a retrospective Cohort study in Nova Scotia, Canada.

Neonatal morbidity in our study was also significant 38.8% of our patients were delivered before 37 weeks and 29.6% of newborns were admitted to the neonatal intensive Care.

However the 5 minute ARGAR Score was improved, and only 12.9% had a score<7. morbidity was more marked before 34 weeks.There was a progressive decrease in neonatal morbidity in the form of improving Apgar scores and fewer admission to the NICU as gestation advanced was observed in the study, this is also supported by the studies done by Rosenberg and Plarg As etar therefore, waiting until 37 weeks if patient is not bleeding could decrease the neonatal morbidity. However, the obstetrician must weigh the risks of neonatal prematurity against the benefits of a planned delivery.

CONCLUSION

Advancing maternal age, multiparity , prior Caesarean section and prior abortion are independent risk factors for placenta previa. An increase in the incidence of these risk factors probably contribute to a rise in the number of pregnancies Complicated with placenta previa. Placenta previa remains a risk factor for various maternal complications adversely affecting maternal and perinatal outcome. The detection of placenta previa should encourage a careful evaluation with timely delivery in order to " reduce the associated maternal and perinatal complications".

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