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MATERNAL AND FETAL OUTCOME OF PLACENTA PREVIA IN A TERTIARY CARE CENTRE

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ABSTRACT Placenta previa occurs when the placenta is implanted partially or completely over the lower uterine segment, covering or adjacent to the internal os. Diagnosis is confirmed clinically or through ultrasonography . Advanced maternal age,multiparity,multiple pregnancy, prior cesarean delivery ,uterine surgery, previous placenta previa, pregnancy following Assisted reproductive techniques and smoking are identified as high risk factors for placenta previa. A Study of 47 cases was conducted to observe Maternal and fetal outcome in cases of placenta previa presented in labour room beyond >28 weeks of pregnancy. Placenta previa is associated with several complications like antepartum hemorrhage , preterm births,morbid placenta, postpartum hemorrhage, cesarean hysterectomy,ICU admission,low birth weight and NICU admission.

KEYWORDS :

INTRODUCTION

- Antepartum haemorrhage is one of the most dangerous and devastating groups of disorders in obstetrics. Placenta previa contributes to 1/3rd cases of antepartum haemorrhage .
- Placenta previa is an obstetric condition characterised by abnormal implantation of placenta into the lower segment of the uterine wall, covering whole or part of the cervix . It is a major risk factor for postpartum haemorrhage and can lead to severe morbidity and mortality of the mother and neonate.

Revised Classification (ACOG,ACR,2014):

- **(A) True Placenta Previa :** Placenta covers the internal os either partially and completely
- **(B) Low Lying Placenta :** Placenta lies within 2 cm of internal os but does not cover it .

Aims and objectives

Aim: To determine the incidence and maternal and fetal outcomes among women with placenta previa (PP) in sirT hospital.

Objectives:

- To assess the prevalence of placenta previa.
- To assess risk factors for placenta previa.
- To assess maternal & fetal complications.
- To assess maternal & fetal outcome.

MATERIAL AND METHODS

- **Study Type:** Prospective and observational study
- **Sample Size:** 47
- **Study Period:** 10 months
- **Study Population:** All cases of placenta previa beyond >28 weeks of pregnancy coming in labour room in given time period in sirT hospital bhavnagar.
- **Study Site:** Obstetrics and gynecology department of SirT Hospital and Government Medical College, Bhavnagar.

Inclusion Criteria:

- All the antenatal women with placenta previa beyond 28 weeks of gestational age, diagnosed clinically or through ultrasonography and were selected irrespective of their parity, type of placenta previa

Study Procedure

- All antenatal patients who presented beyond >28 weeks of pregnancy in labour room with symptoms and diagnosed as case of placenta previa in sirT hospital bhavnagar in given time period were included in this study.
- Calculation of gestational age was determined by the last menstrual periods and first-trimester ultrasound.
- The diagnosis of placenta previa was based on history, clinical examination ,USG and at cesarean delivery.
- The study was explained to patient and their relative, written informed consent was taken from the participant. Basic history, Menstrual history and obstetric history was taken.
- Risk factors associated with placenta previa was assesed.

Examination-

- **General Examination:** Pulse, blood pressure, pallor, edema, icterus
- **Per Abdomen Examination :** Fundal height, feel of uterus (relaxed), fetal heart sound, presentation of fetus, scar of previous caesarean section, scar tenderness.
- **Vulval Inspection:** To note the bleeding
- **Investigation:** Hemoglobin, Renal function test, Urine analysis, Ultrasonography of fetus, Non stress test.
- Antenatal mother with Low lying Placenta was allowed a trial of vaginal delivery and with Comlpete Placenta previa were taken for c-section.
- Maternal and fetal outcome was observed in terms of mode of delivery, maternal complications and fetal complications.

OBSERVATIONS AND ANALYSIS

Table 1: Proportion of Placenta previa (september-2023 to june-2024)

Total Number of Deliveries	3299
Total Number of Placenta Previa	47
Percentage	1.42

Table 2: Maternal age and placenta previa

Age in years	No. of cases (TOTAL-47)	percentage

Less than 20	1	2
20-25	15	32
26-30	25	53
31-35	4	8
>35	2	4

Table 3: Socioeconomic Status

Status	No.of patients	Percentage(%)
Lower	13	0.27
Middle	33	0.7
upper	01	0.02

Table 4: Gravida And Placenta Previa

Gravida	No.of cases	Percentage(%)
Primigravida	13	28
Multigravida	22	47
Grandmultigravida(>3)	12	25

Table 5: Gestatoinal Age(weeks) And Placenta

Gestational age group	No.of previacases	Percentage(%)
28-32	8	17
33-36	19	40
>=37	20	42

Table 6: Risk Factors Associated With Patients Of Placenta Previa

Risk factors	No.of patients (Total-47)	%
Prev 1c-section	04	8.5
Prev 2 c-section	06	12
>=previous 3 c-section	01	2
Twin pregnancy	01	2
History of Uterine surgery	01	2
Previous history of placenta previa	01	2
smoking	00	0
Assisted reproductive technique	01	2
Malpresentation in present pregnancy	09	19
No risk factors	23	48

Table 7: Type Of Placenta Previa

Type of placenta	Number	Percent
Low lying	21	44
Complete placenta previa	26	55
Total cases	47	

Table 8: Mode Of Delivery

Type of placenta	Number	Normal delivery	LSCS
Low lying	21	03	18
Complete placenta previa	26	00	26
total	47	03	44

Table 9: Maternal Complications

Complications	Number (Total-47)	Percentage (%)
Post - partum Haemorrhage	05	10
Placenta cut through	03	6
Haemostatic suturing	00	00
Caesarean hysterectomy	01	2
Blood transfusions	15	32
ICU Care	05	11
Maternal mortality	00	00

Table 10a: Perinatal Outcome In Term Births (n=20).

Outcome	Number s (N)	Percentage(%)
Healthy babies	18	37.5
Birth asphyxi a	02	4.2
Still born	00	00
Neonata	00	00

Table 10b: Perinatal Outcome In Preterm Births (N=28)

Outcome	Number s (N)	Percentage(%)
Healthy babies	08	17
Birth asphyxia	14	29.2
Still born	04	8.3
Neonatal death	02	4.2

RESULT

The total number of deliveries during the study period were 3299. Of these 47 cases were placenta previa. The incidence of placenta previa among total deliveries during the study period was 1.42%. The risk of occurrence of placenta previa is increased with advancing maternal age, gravidity, previous csections , previous uterine surgery and malpresentation. 57.4% of cases delivered before 37 weeks of gestation.

Recurrence rate of placenta previa is 2 %. Out of 47 cases 44.7% cases had low lying placenta previa and 55.3% had True placenta previa . 93.6% of placenta previa cases were delivered by cesarean section, 11% of cases developed PPH and all the cases were managed conservatively. There were 1 cesarean hysterectomy for placenta previa. The incidence of preterm delivery in placenta previa was 45% and Incidence of perinatal deaths in placenta previa was 12.7%.

CONCLUSIONS

Placenta previa , whether found fortuitously by ultrasound or with the clinical emergency of maternal hemorrhage carries significant maternal and fetal risk. Accurate diagnosis, judicious expectant management with blood transfusion as required and timely delivery can lead to the most favourable outcome. The current study suggested there is association between advancing maternal age, gravidity and cesarean sections as increased risk factors for placenta previa. Anticipation of the clinical complications like PPH and conservative management may avoid serious consequences. Since the incidence of preterm babies is high in cases of placenta previa delivery must be conducted in a tertiary care centre with good neonatal setup .It requires a coordinated approach involving obstetricians, neonatologists and other health care providers.

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