

STUDY OF MATERNAL AND PERINATAL OUTCOMES IN PREGNANT WOMEN WITH FIRST TRIMESTER VAGINAL BLEEDING IN UTTAR PRADESH POPULATION

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Abstract

Background: Vaginal bleeding in the first trimester of pregnancy is associated with spontaneous abortion / miscarriage, ectopic-implantation, hydatidi form mole, preterm delivery. Hence such condition must be dealt cautiously. **Materials and Methods:** 85 pregnant women with first trimester vaginal bleeding were studied. Physical and obstetrical examination was carried out. Investigation like Hb%, CT, BT, ABO “Rh”, HIV, syphilis, HbsAg, HCV, Urine complete, FBS, TSH, S.β-HCG was carried in every patient. USG was done in all patients to know the site of pregnancy, period of gestation, cardiac activity, size of sub-chorionic haematoma, adnexal mass, free fluid if any. **Result:** Clinical manifestations were – Age 18-25 was 22 (25.8%), 26-35 were 46 (54%), > 35 were 17 (20%). Bleeding volume – 4 (4.70%) spotting, 62 (72.9%) moderate, 19 (22.3%) severe. Parity – zero were 48 (56.4%), 1 were 25 (29.4%), 2 were 9 (10.5 %), > 2 were 3 (3.52 %). 29 (34.1 %) had previous bleeding, 13 (15.2%) had history of abortion. Obstetrical complications were 22 (25.8%) had premature labour, 7 (8.23%) premature rupture of membrane, 12 (14.1%) placental abruption, 2 (2.35%) Intra-uterine death. The pregnancy outcomes were – 17 (20%) had abortion, 9 (10.5%) had termination of pregnancy, 33 (38.8%) had normal vaginal delivery, 35 (41.1%) caesarean section, of which babies 10 (11.7%) 0 minute 5 APGAR, 14 (16.1%) were admitted at NICU. **Conclusion:** This pragmatic study revealed that, vaginal bleeding in trimester of pregnancy may predict further maternal and fetal complications.

INTRODUCTION

First trimester bleeding is a common complication which affects 16-25% of all pregnancies.^[1,2] Threatened miscarriage is diagnosed on the basis of documented foetal cardiac activities on ultrasound with a history of vaginal bleeding and the presence of closed cervix. Bleeding during pregnancy can cause maternal anxiety and emerging evidence suggests that it may be associated with poor foetal and maternal outcomes.^[3,4] It is observed that the first trimester bleeding may indicate an underlying placental dysfunction, which may manifest later in pregnancy causing adverse outcomes such as increased risk of pre-eclampsia, preterm delivery, preterm pre labour rupture of membrane (PPROM) placental abruption and intra uterine growth restriction (IUGR).^[5,6] It is also found that, adverse perinatal outcomes following vaginal bleeding in first and second trimesters of pregnancy hence attempt was made to evaluate the various clinical

manifestations and obstetrical complication and outcomes of pregnancy so that, the pregnant study will be a guide line for obstetrics and Gynaecologist while treating first trimester vaginal bleeding.^[7]

MATERIALS AND METHODS

85 pregnant women admitted at obstetrics and Gynaecology department of Noida International Institute of Medical Sciences and Hospital Greater noida-203201 Uttar Pradesh were studied

Inclusive Criteria

Pregnant women with history of bleeding per vaginum during first trimester were selected for study.

Exclusion Criteria

Women with chronic medical complications including diabetes mellitus, hypertension history of infertility, on antipsychotic therapy, immune

compromised patients were excluded from the study.

Method

A detailed obstetrical history was taken regarding period of amenorrhoea, amount of vaginal bleeding (spotting, moderate or heavy) colour of bleeding, association with pain and any other complaint. A complete general physical examination and obstetrical examination was carried out in every patient. Investigations like Haemoglobin, bleeding time, clotting time, ABO Rh, HIV, serological test for syphilis, HBsAg, HCV, Urine complete, Fasting blood sugar, serum TSH, and beta HCG was carried in all patients. Ultra-sonography was done in all patients at the time of admission to know the site of pregnancy, period of gestation, cardiac activity, size of sub-chorionic haematoma, adnexal mass and free fluid if any. Patients were followed regularly till delivery. Maternal outcomes like abortion, preterm delivery, preterm premature rupture of membranes, placenta previa, placental abruption, preeclampsia, anaemia post-partum haemorrhage and perinatal outcomes like intrauterine growth retardation, preterm low birth weight, birth asphyxia, and foetal death were recorded.

Duration of study was January-2021 to June-2021

Statistical analysis

Various clinical manifestations like age groups, parity, bleeding volume, previous history of bleeding abortions, obstetrical complications, pregnancy outcomes were classified with percentage. The statistical analysis was carried out in SPSS software.

RESULTS

[Table 1] Clinical Manifestation of obstetrical patients-

Age:-

- 18-25 were 22 (25.8%)
- 26-35 were 46 (54.1%)
- >35 were 17 (20%)

Bleeding volume:

- 4 (4.1 %) only spotting
- 62 (72.9%) moderate bleeding
- 19 (22.3%) high bleeding

Parity:

- 48 (56.4%) had zero parity,
- 25 (29.4%) had 1,
- 9 p (10.5%) had 2,
- 3 (3.52%) had more than 2

History of previous bleeding had 29 (34.1%) patients

History of abortion 13 (15.2%) patients

[Table 2] Study of obstetrical complications in patients with first trimester vaginal bleeding – 22 (25.8%) had premature labour, 7 (8.23%) had premature rupture of membrane, 12 (14.1%) had placental abruption, 2 (2.35%) had Intra-uterine

death, 4 (4.7%) had Intra-uterine growth retardation, 38 (44.7%) had no complications.

[Table 3] Study of pregnancy outcome in patients with first trimester vaginal bleeding – 17 (20%) had abortion, 9 (10.5%) termination of pregnancy, 33 (38.8%) Normal delivery, 35 (41.1%) had caesarean, out of which 10 babies (11.7%) had minute 5 APGAR score, 14 (16.1%) were admitted in NICU.

Table 1: Clinical manifestation of obstetrical patients

Manifestation	Age	No. of patients	Percentage
a) Age	18-25	22	25.8%
	26-35	46	54.1%
	> 35	17	20%
b) Bleeding volume in current pregnant	Spotting	4	4.70%
	Moderate	62	72.9%
	High	19	22.3%
c) Parity	0	48	56.4%
	1	25	29.4%
	2	9	10.5%
	> 2	3	3.52%
d) History of previous bleeding	Yes	29	34.1%
	No	56	65.8%
e) History of abortion	Yes	13	15.2%
	No	72	84.7%

- Bleeding volume was high in 19 (22.3%) and 0 (zero) in 48 (56.4%)
- History of previous bleeding was in 29 (34.1%) patients and history of abortion was in 13 (15.2%)

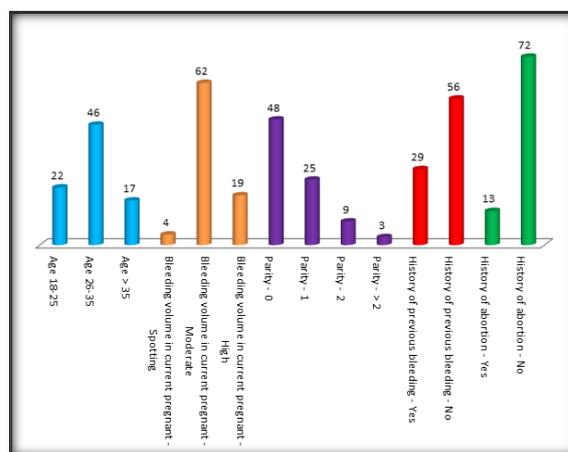


Figure 1: Clinical manifestation of obstetrical patients

Table 2: Study of obstetrical complications in patients with first trimester bleeding

Complications	No. of patients	Percentage
Premature Labour	22	25.8
Premature rupture of membrane	7	8.23
Placental abruption	12	14.1
Intra Uterine death	2	2.35
Intra uterine growth retardation	4	4.70
No complications	38	44.7

Premature labour was highest 22 (25.8%) and Placental abruption was 12 (14.1%), Intra Uterine death was only 2 (2.35%), but Intra uterine growth retardation was 4 (4.70%)

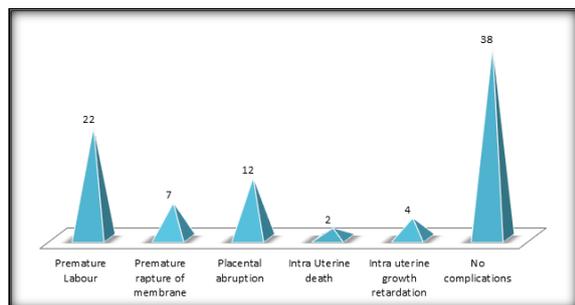


Figure 2: Study of obstetrical complications in patients with first trimester bleeding

Table 3: Study of pregnancy outcomes in patients with first trimester vaginal bleeding

Pregnancy outcome	No. of patients	Percentage
Abortion	17	20
Termination of pregnancy	9	10.5
Normal vaginal delivery	33	38.8
Caesarean section	35	41.1
Minute 5 APGAR score	10	11.7
Admission in NICU	14	16.1

Abortion was 17 (20%), Caesarean section were 35 (41.1%), but admission in NICU was 14 (16.1%)

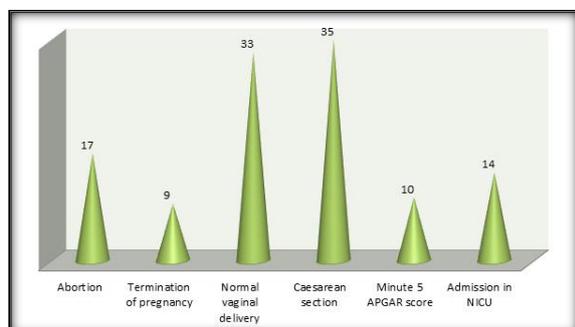


Figure 3: Study of pregnancy outcomes in patients with first trimester vaginal bleeding

DISCUSSION

Present study of maternal and perinatal outcome in pregnant women with first trimester vaginal bleeding in Uttar Pradesh Population. Clinical manifestations were Age 18-25 were 22 (25.8%), 26-35 were 46 (54%), > 35 were 17 (20%). Bleeding volume in current pregnancy 4 (4.70%) had spotting, 62 (72.9%) had moderate bleeding, 19 (22.3%) had high volume of bleeding. Parity zero were 48 (56.4%), 1 were 25 (29.4%), 2 were 9 (10.5%), > 2 were 3 (3.52%). 29 (34.1%) had history of previous bleeding, 13 (15.2%) had history of abortion [Table 1]. The obstetrical complications were – 22 (25.8%) premature labour, 7 (8.23%) premature rupture of membrane, 12 (14.1%) had

placental abruption, 2 (2.35%) had intra uterine death, 4 (4.70%) had intra-uterine growth retardation [Table 2]. The pregnancy outcomes were – 17 (20%) had abortion, 9 (10.5%) had termination of pregnancy, 3 (38.8%) had normal vaginal delivery, 35 (41%) caesarean delivery, of which 10 babies (11.7%) 0-minute 5 APGAR score, 14 babies (16%) admitted at NICU [Table 3]. These findings are more or less in agreement with previous studies.^[8,9,10,11]

It is reported that vaginal bleeding during first trimester was associated with increased risk of low birth weight, preterm birth, still birth weight, death and congenital malformations in infants.^[13,14] If untreated may lead to threatened miscarriage also, it was noted that spontaneous pregnancy loss in first trimester vaginal bleeding followed by heavy bleeding.^[15,16]

Some studies define first trimester up to 12th weeks while some authors claim first trimester up to 14th week of pregnancy.^[17] The vaginal bleeding is associated with intrauterine infection and foetal anoxia has been suggested as teratogens in pregnancies complicated by early bleeding.^[18,19] Placental infarction, decidual haemorrhage and necrosis accompanying vaginal bleeding may lead to intra-uterine infection, placental abnormality, and poor foetal growth.^[20] Threatened abortion is the result of severe intra-uterine infection but non-infectious vaginal bleedings were also reported in many cases.

CONCLUSION

The present study of maternal and perinatal outcomes in pregnant women with first trimester vaginal bleeding are at increased risk for spontaneous pregnancy loss and adverse pregnancy outcomes like preterm, antepartum haemorrhage, inter-uterine growth retardation, low birth weight, prenatal mortality and admission to neonatal intensive care unit but there was no significant increase in incidence of preeclampsia, anaemia, such pregnancies demand early approach to obstetrics and gynaecologist with well-equipped medical centre so that, the predicted risk can be reduced, or prevented. However the present study demands further, patho-physiological, genetic, nutritional, hormonal studies because exact pathogenesis of vaginal bleeding during early pregnancies is still un-clear.

Limitation of Study

Owing to tertiary location of present studied hospital, small number of patients and lack of latest instruments we have limited results

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