

# Study of Fetal Outcome in Cases of Bleeding Per Vaginum in First Trimester of Pregnancy

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**Abstract:** Objectives: To know the common causes of first trimester bleeding p/v & To evaluate the fetal outcome following first trimester bleeding p/v. Material & Method: The Prospective study of 100 consenting & consecutive cases of first trimester bleeding per vaginum was carried out at our institute in the department of obstetrics and gynecology from July 2015 to Feb 2016. Primary outcome noted is the cause of first trimester bleeding p/v. Secondary outcome noted is foetal outcome in continuation of pregnancy. Inclusion Criteria: Patient with definitive diagnosis of pregnancy within 12 weeks with complains of first episode of bleeding p/v admitted in antenatal ward of OG department. Exclusion Criteria: H/O intake of MTP pills & Gestation age >12 week at the time of bleeding. Summary: The mean age of the patients enrolled was 21 year. Most of the patients were multigravida (68%). In our study most of the subjects delivered vaginally (69 %) while 13 % subjects had undergone LSCS and 18 % subjects delivered preterm. In our study out of 74 patients , 14 patient(20%) had preterm birth, while in general population rate of preterm birth 10%(P value-0.02) which is statistically significant. In our study out of total 74 patients , 24 patients (32%) had IUGR, while in general population only 11% had IUGR (p value-<0.0001) which is statistically highly significant. Conclusion: Bleeding per vaginum in the first trimester is common fetal complication includes IUGR, preterm delivery or rarely IUFD. So by knowing the etiology & fetal outcome of bleeding per vaginum in first trimester, we can predict the complication which will occur in later pregnancy and we can manage it properly.

**Keywords:** Bleeding Per Vaginam, Still Birth, IUFD, IUGR

## 1. Introduction

First trimester bleeding per vaginum is a matter of great concern to a large group of obstetric population. Bleeding p/v is a threat or a warning sign for continuation of present pregnancy, which can be converted into normal pregnancy by early detection and intervention by means of modern and sophisticated diagnostic and therapeutic aids.

The exact etiology of bleeding per vaginum is still unknown. But now, due to Influx of modern technology and understanding of its pathology, those cases which were labeled vaguely and in a bunch as threatened abortion, are in most instances having an explanation.

Diagnosis is made depending upon the history, general condition of the patient and investigations like maternal blood and urine levels of hormones like Progesterone, HCG and ultrasonography. Ultrasonography is a safe and noninvasive diagnostic technique, which helps in timely diagnosis of bleeding p/v in first trimester. So, it should be done as a routine investigation in all patients with complain of bleeding p/v in first trimester. It gives a clue of viability or non viability of pregnancy, which can be terminated without undue delay.

Numerous studies have shown association between vaginal bleeding in early pregnancy and gestational and perinatal complications like fetal loss, perinatal mortality, low birth weight , poor fetal growth, preterm deliveries and congenital anomalies.

It is with the aim to define clearly the obstetric outcome in cases presented with bleeding per vaginum in first trimester that this prospective study was conducted.

## 2. Aims & Objects of Study

1. To know the common causes of first trimester bleeding per vaginum.
2. To evaluate the fetal outcome following first trimester bleeding p/v.

## 3. Material & Method

The Prospective study of 100 consenting & consecutive cases of first trimester bleeding per vaginum was carried out at our institute in the department of obstetrics and gynecology from July 2015 to Feb 2016.

Primary outcome noted is the cause of first trimester bleeding per vaginum.

Secondary outcome noted is foetal outcome in continuation of pregnancy.

### Inclusion Criteria:

Patient with definitive diagnosis of pregnancy within 12 weeks with complain of first episode of bleeding p/v admitted in antenatal ward of OG department.

### Exclusion Criteria:

H/O intake of MTP pills & Gestation age >12 week at the time of bleeding.

The cases were studied and observed according to the proforma. Detailed history of patients were taken and thorough clinical examination was carried out.

Detailed menstrual history was elicited regarding past menstrual history and last menstrual date. Detailed obstetric

history was elicited regarding previous pregnancy, last delivery, any abortion or preterm delivery. History of taking any medication for termination of pregnancy.

Then complete clinical & obstetrical examination were carried out .After that patient were subjected to various investigations like CBC ,Blood group Rh, Urine Pregnancy test, HCG measurement if required & USG to determine etiology.

Patients then offered treatment according to the etiology.

Then the cases were followed up to term and also in early perinatal period to study foetal outcome later on.

After delivery baby was examined for maturity and for any elements of low birthweight , IUGR or any other perinatal complications.

#### 4. Observation and Discussion

The present study is a prospective study of 100 consecutive cases of Bleeding Per vaginum in first trimester in pregnancy presenting to our institute between July 2015 to Feb 2016. Our observations are as follows:-

**Table 1: Age**

Age	N=100	Percentage
<19 year	47	47%
20-25 year	37	37%
>26 year	16	16%

Most of the subjects enrolled in our study were under <19 year of age. (47%)

Mean age : 20.7 year

**Table 2: Gestational age at first episode of bleeding**

Gestational age at first episode of bleeding	N=100	Percentage
<6 WK	07	07
6-10 WK	66	66
10-12 WK	27	27

In our study most of the subjects had first episode of bleeding between 6-10 week gestation(66%).

**Table-3: Amount of bleeding**

Amount of bleeding	N= 100	PERCEN-TAGE
Spotting	77	77
2-4 pad/day	13	13
>4 pad/day	10	10

In our study most of the subjects enrolled had spotting as primary episode of bleeding (77%) while about 10 subjects had significant amount of bleeding(10%).

Most of the patient (8 out of 10) who had significant amount of bleeding had either missed or complete abortion.

In the study of smith et al (2005) ,84.5% patients with heavy bleeding were aborted and 15.5% continued pregnancy till term. Heavy bleeding in this study was due to low implantation of placenta.<sup>4</sup>

**Table 4: Past H/O Abortions**

Past history of Abortions	N=100
Present	68
Absent	32

In our study 68 patients had past history of abortion, while 32 patients had no such history.

Everett et al (1999) stated that risk of miscarriage was not significantly increased after miscarriage in previous pregnancy<sup>5</sup>.

Prof. EL-Zibdeh (2001) noticed that due to progesterone supplementation in patients with recurrent abortions, 85.4% patients had viable pregnancy while only 14 % patients had abortions.<sup>6</sup>

**Table 5: Etiology of bleeding PV**

Etiology of bleeding PV	n=100	PERCENTAGE
Abortion	98	98
Ectopic gestation	02	02
Vesicular mole	00	00

In our study most common etiology of bleeding PV is spontaneous abortion (98%).

**Table 6: Type of abortion**

Type of abortion	N=98	Percentage	Adelusi et al (n=100)
Threatened abortion	74	75%	62%
Inevitable abortion	07	7.1%	11%
Missed abortion	10	10.25%	10%
Incomplete abortion	04	4.08%	08%
Complete abortion	00	0	1%
Blighted ovum	03	3.06%	8%

Adelusi et al (2001) stated that 40% patients with abortion lost their pregnancy due to various reasons<sup>6</sup>.While in our study, 24% patients had aborted their pregnancy due to various different type of abortion. (p value=0.24) which is statistically not significant.

In our study most of subjects of abortion are having Threatened abortion (76%) followed by missed abortion (10%) followed by inevitable abortion followed by Incomplete abortion.

**Table 7: Perinatal outcome**

	N= 74	%
Full Term AGA	60	81%
Preterm AGA	14	20%
IUGR	24	32%
Still Birth	2	2%

In present study percentage of IUGR babies is 41%.

Funderburk et al stated (2003) stated that 26% infants had low birth weight or were small for dates. He defined low birth weight as birth weight <2.5 kg and gestational age >36 week. He found suboptimal outcome in 29.7% subjects with threatened abortion compared to 15.2% patients without threatened abortion<sup>2</sup>.

**Comparison with Other Study**

	% of Intrauterine growth restriction
Present study	41%
Funderburk et al	29.7
Stewart et al	20

outcome of bleeding per vaginum in first trimester, we can predict the complication which will occurs in later pregnancy and we can manage it properly.

In present study, rate of Intrauterine growth restriction was as high as 41% compared to other study outside India. In India others factors coexist like poverty, malnutrition, anaemia, pregnancy induced hypertension which lead to higher rate of Intrauterine growth restriction.

**Table 8:** Comparison of preterm birth of this study with general population

	% of our study(n=74)	General population in our institute(n=100)
Preterm	14(20%)	10(10%)
Fullterm	60(80%)	90(90%)

In our study out of 74 patients , 14 patient (20%) had preterm birth, while in general population rate of preterm birth 10%(P value-0.02 )which is statistically significant.

**Table 9:-**Complication of IUGR birth of this study with general population

	N=74 (present study)	N=100(general population in our institute)
IUGR	24(32%)	11(11%)
Normal birth weight for gestation age	50(68%)	89%( 89% )

In study out of total 74 patients , 24 patients (32%) had IUGR, while in general population only 11% had IUGR (p value-<0.001) which is statistically highly significant.

**5. Summary**

- The mean age of the patients enrolled was 21 year. Most of the patients were multigravida (68%)
- In our study most of the subjects delivered vaginally (69 %) while 13 % subjects had undergone LSCS and 18 % subjects delievered preterm.
- In our study out of 74 patients , 14 patient(20%) had preterm birth, while in general population rate of preterm birth 10%(P value-0.02) which is statistically significant.
- In our study out of total 74 patients , 24 patients (32%) had IUGR, while in general population only 11% had IUGR (p value-<0.0001) which is statistically highly significant.

**6. Conclusion**

Bleeding per vaginum in the first trimester is a matter of great concern in first trimester in obstetric population. It is a threat or warning sign for continuation of present pregnancy. The most common etiology for bleeding per vaginum in first trimester is spontaneous abortion or in a lesser extent is ectopic pregnancy or vesicular mole. It is commonly associated with obstetric complications like PROM, preterm delivery, hypertension, placenta previa, abruptio placentae etc. The common fetal complication includes IUGR, preterm delivery or rarely IUFD. So by knowing the etiology & fetal