



A STUDY ON FETOMATERNAL OUTCOME IN FIRST TRIMESTER BLEEDING PER VAGINUM

**Dr. Preeti Lewis** (Asso Prof, MS, OBGY, Grant Govt Medical College Mumbai)

**Dr. Ashok R Anand** (HOD, Dept of OBGY, Grant Govt Medical College Mumbai)

**Dr. Purva Pimple** (Jr3, OBGY, Grant Govt Medical College & JJH),

**ABSTRACT** Pregnancy is a significant event in a woman's life. The occurrence of vaginal bleeding in first trimester often results in anxiety regarding the outcome of pregnancy for the couple.

**Aim:** To study associated risk factors and fetomaternal outcomes of patients with bleeding per vaginam in first trimester.

**Results:** Bleeding in early pregnancy leads to increased risk of abortion, preterm rupture of membranes and increased risk of operative intervention in mothers. Bleeding in early pregnancy is related to preterm birth, low birth weight and small-for-gestational age infants, which suggest that early gestational vaginal bleeding predicts suboptimal pregnancy outcome.

When bleeding results in loss of pregnancy, it usually represents a significant emotional disruption in a woman's life. Appropriate counselling regarding bleeding in early pregnancy and the ability to predict the possible outcome of that pregnancy could alleviate anxiety and assist the couple in coping with the consequences.

**KEYWORDS :** Vaginal bleeding, Pregnancy outcomes, First trimester

INTRODUCTION:

Vaginal bleeding is a relatively common event in the first trimester. Approximately one third of first trimester vaginal bleeding happens in pregnancies that are otherwise normal<sup>[1]</sup>. Vaginal bleeding can be a normal sign of implantation of the pregnancy, may signify the initiation of spontaneous abortion, or may be the sign of a pathologic condition such as ectopic pregnancy or gestational trophoblastic disease.. Nearly all instances of first trimester bleeding can be adequately evaluated with a combination of clinical evaluation and ultrasonography, preferably via transvaginal technique This study aimed to evaluate the fetomaternal outcomes in a group of Indian patients with the complain of vaginal bleeding in the first trimester.

AIM

To study the associated risk factors and fetomaternal outcomes of patients coming with bleeding per vaginam in first trimester.

METHODS & METHODOLOGY:

This is a prospective study of associated risk factors and fetomaternal outcome in first trimester bleeding per vaginam. The study was carried out in Department of Obstetrics and Gynecology of tertiary care hospital in Mumbai, India. It was Prospective study of 300 patients between 1<sup>st</sup> April 2015 to 31<sup>st</sup> October 2016.

All UPT positive patients in OPD and IPD of the tertiary care hospital with complaints of first trimester bleeding per vaginam were included in the study and were followed up till their final outcome. However, those patients who came with history of intake of abortifacients, ectopic pregnancy, molar pregnancy, any local lesion and bleeding disorders were excluded from the study.

RESULTS:

In this study a total of 300 women with vaginal bleeding in the first trimester of their pregnancy were studied. The obstetrical characteristics of patients are summarized as below.

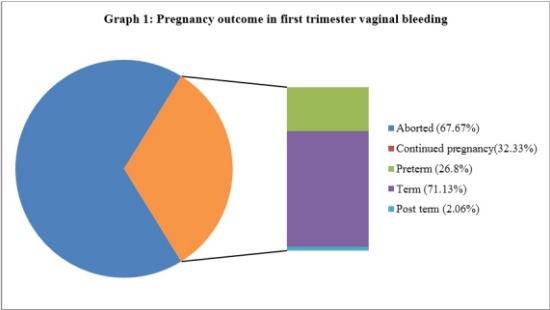
The most common maternal age group for first trimester vaginal bleeding is 21-30 years.

The risk of first trimester vaginal bleeding is more in multigravidas.

Out of 300 patients, 92 patients with history of previous abortions, had first trimester vaginal bleeding in this pregnancy. Of these 92, 44 aborted in this pregnancy and 48 continued pregnancy.

Of 176 patients who reported with spotting pv, pregnancy continued in 52.57%.

Graph 1: Pregnancy outcome in first trimester vaginal bleeding



Out of 300 patients with history of first trimester vaginal bleeding, 97 patients continued pregnancy and 203 aborted. Out of 97 patients who continued pregnancy, 26 (26.8%) patients had preterm deliveries, 69 (71.13%) had term deliveries and 2 (2.06%) had post term deliveries.

TABLE 1: Obstetrical complications in mothers with first trimester vaginal bleeding

Complications	
Abortion	203
Preterm rupture of membranes	30
Gestational Hypertension	15
Operative intervention	28

Abortion was the most commonest obstetrical complication in the study population

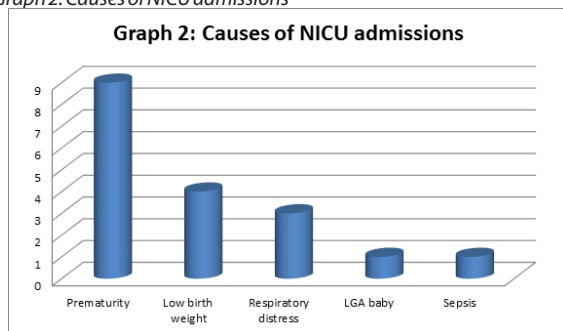
Most common mode of termination of patients with history of first trimester vaginal bleeding is by vaginal delivery (62 patients).

TABLE 2: Fetal complications in first trimester vaginal bleeding

	Percentage
Prematurity	26.4%
Intra uterine Growth Restriction	3.09%
Low birth weight	35.05%
Still birth	2.06%
NICU admission	14.74%

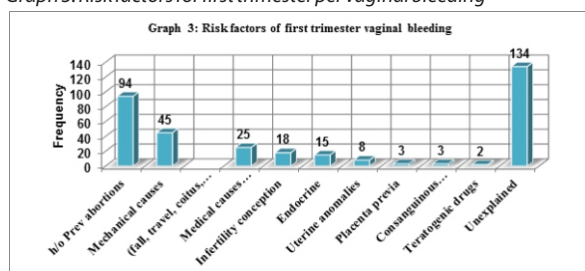
Term babies were seen in 69(71.13%) babies born.

Graph 2: Causes of NICU admissions



The most common cause of NICU admission amongst live born babies was prematurity (9). The total number of causes of NICU admissions are more than 14 as few admissions have more than one cause.

Graph 3: Risk factors for first trimester per vaginal bleeding



The cause of first trimester vaginal bleeding in most cases was unknown (134). The total no of risk factors was more than 300 as few cases had multiple risk factors.

## DISCUSSION:

In our study, the risk of abortion in patients of first trimester vaginal bleeding was most commonly seen in mothers >35 yrs of age (85.71%) which was similar to study conducted by N Macanochie<sup>[2]</sup> et al (75%).

In our study, 67.66% pregnancies resulted in spontaneous abortion, which was similar to Bruno<sup>[3]</sup> et al (58.8%) and Everett C<sup>[4]</sup> (57.26%) studies.

Our study results of preterm delivery and premature rupture of membranes were similar to Mulik V<sup>[5]</sup> et al, Arafa M<sup>[6]</sup> et al and Maryam Sadaf Housseni<sup>[7]</sup> et al. However, gestational hypertension seen in 15.46% of those mothers who continued pregnancy was not consistent with any study.

In our study, 28.86% mothers underwent LSCS, similar to Davari-Tanha F<sup>[8]</sup> et al study (28%)

In our study, amongst the mothers who continued pregnancy, IUGR was seen in 3.09% of babies, low birth weight in 35.05%, NICU admissions were required in 14.74% similar to studies conducted by Johns J<sup>[9]</sup> et al, Davari-Tanha F<sup>[10]</sup> et al, Mulik V<sup>[11]</sup> et al, Zhila Amirkhani<sup>[12]</sup> et al etc.

In our study, perinatal mortality was seen in 2.06%, which was similar to Sipila P<sup>[13]</sup> (1.11%) et al, Wijesiriwardana A<sup>[14]</sup> (1.5%) et al and Mulik V<sup>[15]</sup> (2.11%) et al studies.

In our study, none of the babies born had any congenital malformations. However, congenital malformations were seen in 2.97% of babies in study conducted by Arafa M<sup>[16]</sup>.

## CONCLUSION

It has been recognized in our study that the risk of adverse maternal outcomes, such as abortion, preterm rupture of membranes,

gestational hypertension, increased risk of operative intervention are increased in mothers with first trimester vaginal bleeding. Similarly, adverse fetal outcomes, such as prematurity, intrauterine growth restriction, low birth weight, stillbirths and the NICU admissions, is increased. This is consistent with other similar studies. However, inconsistent results have been reported in relation to bleeding and congenital malformations. Our study also could not establish any relation between first trimester vaginal bleeding and congenital malformations.

## REFERENCES:

1. Yazigi R, Saunders E, Gast M, Williams MA, Mittendorf R, Lieberman E, Monson RR. Hormonal therapy during pregnancy. *Contemp Ob Gyn*. 1991;61:78.
2. N Macanochie, P Doyle, S Prior, R Simmons, Risk factors for first trimester miscarriage—results from a UK-population-based case-control study, Feb 2007, vol 114, issue 2, pages- 170-186.
3. Bruno C. Casanova, Mary D. Sammel, Jesse Chittams, Kelly Timbers, Jennifer L. Kulp, and Kurt T. Barnhart, Prediction of Outcome in Women with Symptomatic First-Trimester Pregnancy: Focus on Intrauterine Rather Than Ectopic Gestation, *J Womens Health (Larchmt)*. 2009 Feb; 18(2): 195-200.
4. Everett C, Incidence and outcome of bleeding before the 20th week of pregnancy: prospective study from general practice, *BMJ*. 1997 Jul 5;315(7099):32-4.
5. Mulik V, Bethel J, Bhal K. A retrospective population-based study of primigravida women on the potential effect of threatened miscarriage on obstetric outcome. *J Obstet Gynaecol* 2004;24:249-53
6. Arafa M, AbdelFataah M, Abou Seid H, Elkhouly A. Outcomes of pregnancies complicated by early vaginal bleeding. *East Med Health J* 2000;6:457-64
7. Maryam Sadat Hosseini and Soghra Yaghoobipour, Late Pregnancy Outcomes in Women with Vaginal Bleeding in Their First Trimester, *J Obstet Gynaecol India*. 2013 Oct;63(5):311-315.
8. Davari-Tanha F, Shariat M, Kaveh M, Ebrahimi M, Jalalvand S. Threatened abortion: a risk factor for poor pregnancy outcome. *Acta Medica Iran* 2008;46:314-20
9. Johns J, Hyett J, Jauniaux E, Obstetric outcome after threatened miscarriage with and without a hematoma on ultrasound, *Obstet Gynecol* 2003;102:483-7
10. Davari-Tanha F, Shariat M, Kaveh M, Ebrahimi M, Jalalvand S. Threatened abortion: a risk factor for poor pregnancy outcome. *Acta Medica Iran* 2008;46:314-20
11. Mulik V, Bethel J, Bhal K. A retrospective population-based study of primigravida women on the potential effect of threatened miscarriage on obstetric outcome. *J Obstet Gynaecol* 2004;24:249-53
12. Zhila Amirkhani, Meisam Akhlaghdoust, Media Abedian, Gelareh Rabie Salehi, Nesa Zarbati, Maryam Mogharehahabed, Sahba Arefian, and Mina Jafarabadi, Maternal and Perinatal Outcomes in Pregnant Women with First Trimester Vaginal Bleeding, *J Family Reprod Health*. 2013 Jun; 7(2): 57-61.
13. Sipila P, Hartikainen Sorri AL, Oja H, Von WL. Perinatal outcome of pregnancies complicated by vaginal bleeding. *Br J Obstet Gynaecol* 1992;99:959-63
14. Wijesiriwardana A, Bhattacharya S, Shetty A, Smith N, Bhattacharya S. Obstetric outcome in women with threatened miscarriage in the first trimester. *Obstet Gynecol* 2006;107:557-62
15. Mulik V, Bethel J, Bhal K. A retrospective population-based study of primigravida women on the potential effect of threatened miscarriage on obstetric outcome. *J Obstet Gynaecol* 2004;24:249-53
16. Arafa M, AbdelFataah M, Abou Seid H, Elkhouly A. Outcomes of pregnancies complicated by early vaginal bleeding. *East Med Health J* 2000;6:457-64