International Journal of Gynaecology and Obstetrics Research
www.gynaecologyjournal.in
E-ISSN: 2663-3612, P-ISSN: 2663-3604
Received Date: 14-03-2019; Accepted Date: 06-04-2019; Published: 27-04-2019
Volume 1; Issue 1; 2019; Page No. 40-48

A study to evaluate maternal and foetal outcome in pregnant women with first trimester vaginal bleeding

Dr. Rajeshwari[1], Dr. Sreelatha S[2], Dr. Sandeep Kumar[3], Dr. Preethi Malpure[4], Dr. Sumayya Sana[5], Dr. shruthi K[6]
[1, 3, 4, 5, 6] Post Graduate, ESIC-PGIMSR, Bangalore, Karnataka, India
[2] Professor, ESIC-PGIMSR, Bangalore, Karnataka, India

Abstract
Background: First trimester vaginal bleeding is the occurrence of bleeding during first 12 weeks of gestation. One of the most common complications seen during in first trimester, with incidence of 20% of clinically recognised pregnancies. Vaginal bleeding can be a normal sign of implantation of pregnancy. Approximately 15% to 20% of clinically recognized pregnancies miscarry. First trimester bleeding may predict higher risk for preterm birth, intrauterine growth restriction, preterm premature rupture of membranes, and placental abruption, Intrauterine growth restriction(IUGR), Low Birth Weight(LBW). So it is necessary to evaluate the first trimester vaginal bleeding in pregnant women, due to increased risk of later pregnancy complications. These risk factors should be considered when deciding on antenatal surveillance and management of such pregnancies.
Aim of study: To assess the pregnancy outcome in women presenting with first trimester vaginal bleeding.
Objectives
1. To assess the maternal outcome in terms of Spontaneous Abortion, Preterm labour, PPROM, PROM, Preeclampsia, APH and Mode of delivery.
2. To assess foetal outcome in terms of preterm, IUGR, LBW, and IUFD.

Methods: This prospective cohort study was conducted on 100 women coming with 1st trimester vaginal bleeding to OPD / emergency during the period December 2016 to June 2018 fulfilling the inclusion criteria in ESIC PGIMSR Hospital, Rajajinagar, Bengaluru.
A written informed consent taken after explaining the procedure, and are followed throughout the pregnancy. In such patient's pregnancy outcomes like maternal-spontaneous abortion, preterm delivery, premature rupture of membranes, preeclampsia, APH mode of delivery and foetal outcomes-in terms of, intrauterine growth restriction, low birth weight, intrauterine foetal demise studied.
Out of 100 women 31 (31%) ended in abortion and 69 (69%) continued the pregnancy. Among those who continued the pregnancy no complication were seen in 21(30.43%) cases, Preterm in 16(23.18%) cases, PPROM seen in 7(10.14%), PROM in 10(14.49%), PIH in 8(11.60%), placenta previa 5(7.24%), severe PIH +Abruptio placenta 2(2.90%) of cases. Foetal outcome seen are in 26(37.68%) cases no complications, preterm in 23 (33.34%) cases, IUGR in 10 (14.50%) cases, LBW in 7(10.14%) cases, IUFD in 3 (4.34%) cases.
Conclusion: From the above study we concluded that women with first trimester vaginal bleeding are at increased risk of later pregnancy complications. So precise management and planning will reduce the poor maternal and foetal outcome.

Keywords: pregnancy, first trimester bleeding, threatened abortion, APH, preterm labor, IUGR

Introduction

The urge for Motherhood is unique. The term 'Safe-Motherhood' is nowadays a slogan, not only in relation to mother but also in relation to foetus.

Complications arise more frequently during the first trimester than at any other stage of pregnancy. Most present with bleeding, pain, or both.Uterine bleeding in early pregnancy represents a definite threat to developing embryo and constitutes a source of Anxiety to both the patient and the clinician. This can be a difficult time for women because of uncertainty of outcome, lack of preventive measures and emotional significance.

Vaginal bleeding during first trimester has been estimated to occur in 16% to 25% of all pregnant women. Various causes for first trimester vaginal bleeding has been identified ranging from Implantation bleeding, Abortion (Threatened, Complete, Incomplete, Inevitable, Missed), Gestational Trophoblastic disease, and Ectopic Gestation.

Approximately 15% to 20% of clinically recognised pregnancies miscarry. When bleeding occurs in the first trimester, about 30% of pregnancies will miscarry, 10% to 15% will be an ectopic pregnancy, approximately 0.2% will be a hydatidiform mole (HM), and about 5% of women will have termination of pregnancy. The remaining 50% will continue beyond 20 weeks [1].

About 15% of Pregnancies are complicated by Threatened miscarriage. It has been shown to be associated with an increased risk of poor obstetric outcomes such as preterm labour, Low birth weight and premature rupture of Membranes.

Although few studies have evaluated outcomes other than viability at term. Most agree that adverse pregnancy outcome is

associated with first trimester vaginal Bleeding. The outcome of ongoing pregnancies after first firmest bleeding is of relevance to women and obstetricians for planning antenatal care and clinical interventions in pregnancy.

The Prognosis of threatened Abortion is very unpredictable whatever method of treatment is employed either in hospital or at home. Threatened Abortion is such an event during pregnancy which needs meticulous attention to fulfil the Purpose. Since the knowledge of increased risks associated with first trimester bleeding may facilitate decision making regarding management and decisions regarding mode, place and timing of delivery which will inevitably improve neonatal outcome, the purpose of this study is to evaluate the outcome of pregnancy complicated by first trimester vaginal Bleeding.

So this study was conducted to know the later pregnancy complications in women presenting with first trimester vaginal bleeding.

Material and methods

Source of data

100 women coming with 1st trimester vaginal bleeding to OPD / emergency during the period December 2016 to June 2018 fulfilling the inclusion criteria in ESIC PGIMSR Hospital, Rajajinagar, Bengaluru.

Study Design

Prospective cohort study

Method of collection of data

100 eligible patients fulfilling the inclusion criteria

(A) Inclusion criteria: Adults, Primi / multiparous women with Singleton pregnancy complicated with vaginal bleeding at less than 12 weeks of gestation

(B) Exclusion criteria

- Multiple pregnancy,
- Pre-existing diabetes mellitus and hypertension
- Cardiac diseases
- Ectopic pregnancy
- Hydatiform-Mole
- Foetus with anomalies
- Fibriod uterus
- Bleeding diathesis

Methodology

100 Women with history of first trimester vaginal bleeding, meeting the above mentioned criteria will be examined, investigated and will be included in the study.

A written informed consent will be taken after explaining the procedure, and are followed throughout the pregnancy. In such patient's pregnancy outcomes like maternal-spontaneous abortion, preterm delivery, pre mature rupture of membranes, ante partum haemorrhage, preeclampsia, APH, and mode of delivery and foetal outcomes-in terms of preterm birth, intrauterine growth restriction, LBW, and IUFD will be studied. Baseline data were recorded by questionnaire and patient interview

Patterns of bleeding PV

Spotting: Bleeding that was too light to require pads or tampons

Bleeding: If bleeding lasting for more than one week with or without clots or as similar to menses.

The following adverse pregnancy outcomes are studied

- Preterm labor - delivery between 23 and <37 weeks of gestation,
- PPROM - rupture of the fetal membranes <37 weeks of gestation before the onset of labor, APH – antepartum haemorrhage
- Placental abruption - premature separation of a normally implanted placenta
- Placenta previa- placenta completely or partially covering the internal os
- Low lying placenta - placenta edge does not reach the internal os but is in close proximity to it
- Gestational hypertension - blood pressure >140/90 mm Hg on at least two occasions >6 hours apart without evidence of chronic hypertension
- Preeclampsia - criteria for gestational hypertension and significant proteinuria
- HEELP syndrome – haemolysis, elevated liver enzymes, low platelet count.
- IUGR - estimated fetal weight by ultrasound examination of <10th percentile or birth weight of <10th percentile for gestational age with or without abnormal uterine artery Doppler measures.
- LBW; Birth weight of <2500 grams.
- IUFD: Intrauterine fetal demise.

Study period: December 2016 – June 2018

Sampling method

Non Random Purposive sampling procedure will be applied for patient selection Numeric data(characteristics) will be expressed as Mean+-SD, mean as non-numeric as proportion(prevalence) and percentages

Sample size: 100

- P (Prevalence) = 25% (.25)
- Allowable error (d) = 0.09~0.10
- α (level of significance) = 5%
- Prevalence varies form (.15 to.35)
- No. Of cases (n) = 72
- Dropout rate = 20%
- No. Of cases (n) = 87 { 72 + 20% drop out rate} rounded off to (n) = 100

Statistical Analysis

Data will be analyzed by SPSS software

- Descriptive statistics will be performed.
- p value of < 0.05 will be considered statistically significant

Routine investigation like complete haemogram, HIV (Human immune deficiency virus), HBSAg (Hepatitis B surface antigen), blood grouping and Rh –typing, urine routine and microscopy and - ULTRASONOFIGY, to confirm pregnancy or abortion

Results

Table 1: Distribution according to age group

gAe Group	Frequency	Percent
<20yrs	31	31%
20-24 yrs	14	14%
25-29 yrs	27	27%
30-34 yrs	20	20%
≥35 yrs	08	08%
Total	100	100

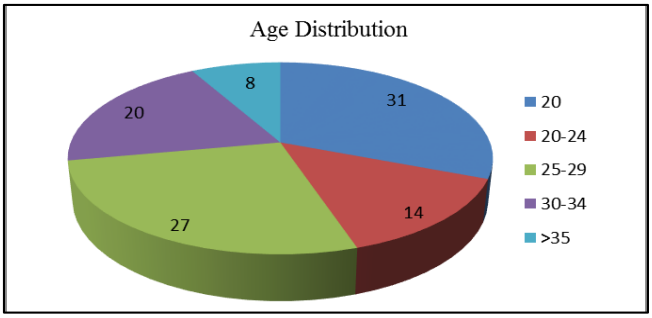

Fig 1: Showing distribution according to age group

In our study first trimester vaginal bleeding is commonly seen in the age group of 20 -29 years accounting for 41% of cases.

Table 2: Distribution according to parity

Obstetric history	Frequency	Percent
Primigravida	39	39.0
Multigravida	61	61.0
Total	100	100.0

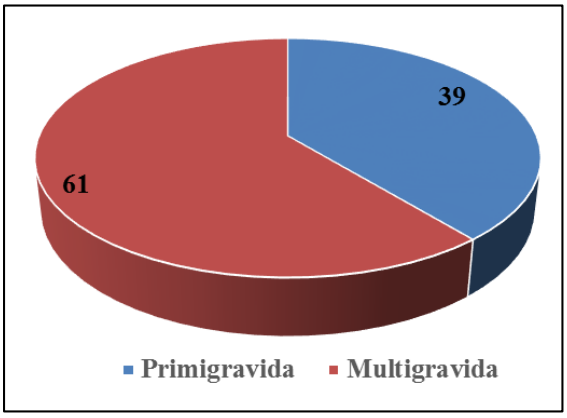

Fig 2: Distribution according to parity

In our study, first trimester vaginal bleeding is most commonly seen in multigravida i.e. 61% cases than compared to Primigravida.

Table 3: Distribution according to presenting complaint

Presenting Complaint	Outcome at the end of 1st trimester		Total
	Abortion	Threatened abortion	
Bleeding PV	22	19	41
	71.0%	27.5%	41.0%
Spotting PV	9	50	59
	29.0%	72.5%	59.0%
Total	31	69	100
	100.0%	100.0%	100.0%

P value <0.001 there was significant difference found between Presenting complaint and outcome at the end of 1st trimester.

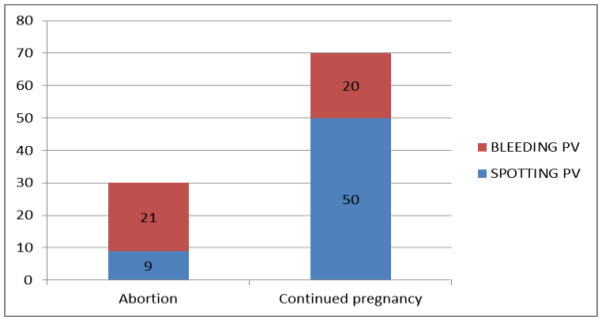

Fig 3: Distribution according to presenting complaint

Table 4: Distribution according to period of gestation

Pog	Outcome at the end of 1st trimester		Total
	Abortion	Threatened abortion	
≤6weeks	2	0	2
	6.5%	0%	2.0%
7-10wks	25	35	60
	80.6%	50.7%	60.0%
>10wks	4	34	38
	12.9%	49.3%	38.0%
Total	31	69	100
	100.0%	100.0%	100.0%

P value <0.001 there was significant difference found between POG and outcome at the end of 1st trimester

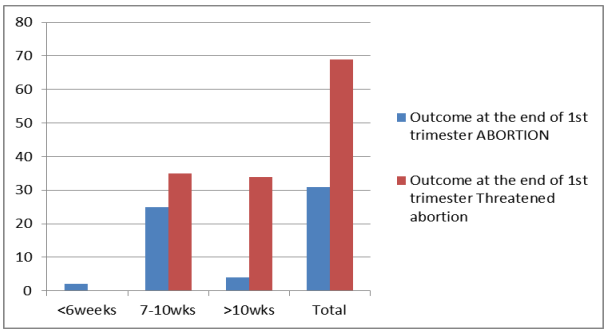

Fig 4: Distribution according to period of gestation

Table 5: Distribution according to outcome with first trimester bleeding

Outcome Of Pregnancy	Frequency	Percent
Blighted ovum	2	2.0
complete abortion	10	10.0
Incomplete abortion	8	8.0
Inevitable abortion	2	2.0
Missed abortion	9	9.0
Threatened abortion	69	69.0
Total	100	100.0

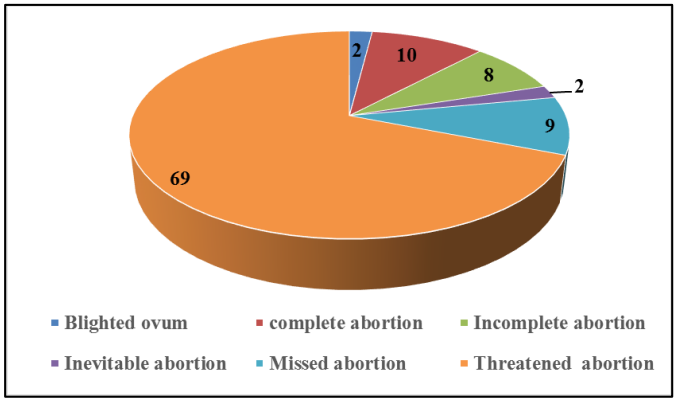

Fig 5: Distribution according to outcome with first trimester bleeding

In our study among 100 cases with bleeding PV in first trimester, 69 cases continued pregnancy and 31 cases ended in Abortion, among these

- 10 cases were complete abortion
- 8 cases were incomplete abortion
- 9 cases were missed abortion
- 2 cases were inevitable abortion
- 2 cases were with blighted ovum

Table 6: Distribution according to maternal outcome

Maternal outcome	Frequency	Percent
No complication	21	30.43
Preterm labor	16	23.18
PPROM	07	10.14
PROM	10	14.49
Pregnancy Induced Hypertension	08	11.59
Placenta Previa	05	7.24
Severe PIH + AbruptioPalcenta	02	2.90
Total	69	100.0

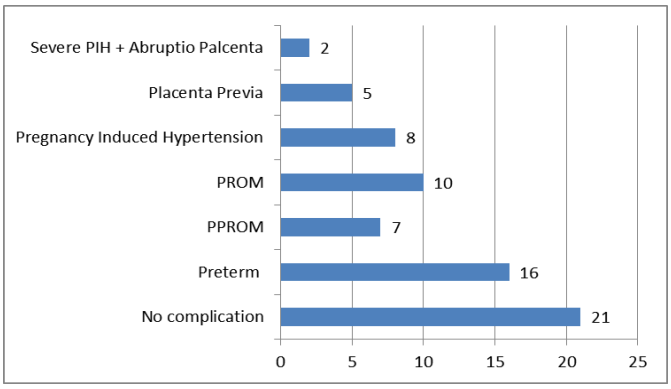

Fig 6: Distribution according to maternal outcome

In our study among 69 cases, 21 cases continued till term without any complications and 16 cases presented with preterm labor, 07 cases with PPRON, 10 cases with PROM, 08 cases with PIH and 05 cases with placenta previa and lastly 02 cases with severe PIH and abruption.

Table 7: Distribution according to mode of delivery

Mode of delivery	Frequency	Percent
LSCS	22	31.89
Vaginal Delivery	47	68.11
Total	69	100.0

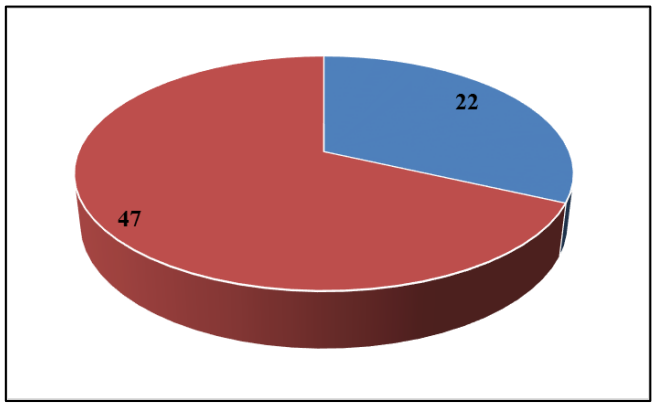

Fig 7: Distribution according to mode of delivery

In our study among 69 cases (who continued with pregnancy) most of them delivered vaginally i.e. 47 cases (68.11%) and 22 cases (31.89%) underwent caesarean section (in most cases indication was foetal distress)

Table 8: Distribution according to foetal outcome

Foetal outcome	Frequency	Percent
No complications	26	37.68
PRETERM	23	33.33
IUGR	10	14.49
LBW	07	10.14
IUFD	03	4.34
Total	69	100.0

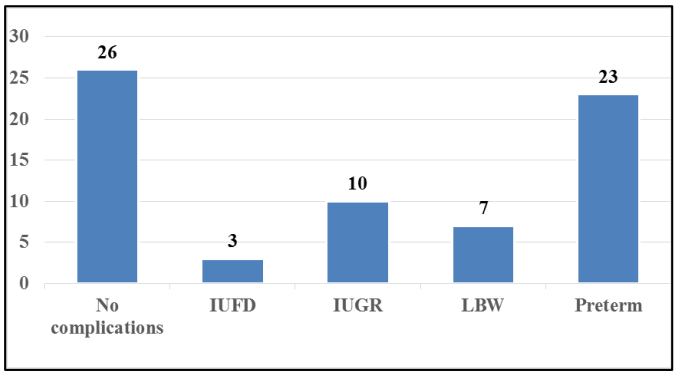

Fig 8: Distribution according to foetal outcome

In our study, foetal outcome without complications seen are 34.78% and preterm babies in 36.23 %, IUGR in 14.5 %, LBW in 10.14 %, IUFD in 4.34 %

Table 9: Distribution according to nicu admission

NICU Admission	Frequency	Percent
Yes	17	24.65
No	52	75.35
Total	69	100.0

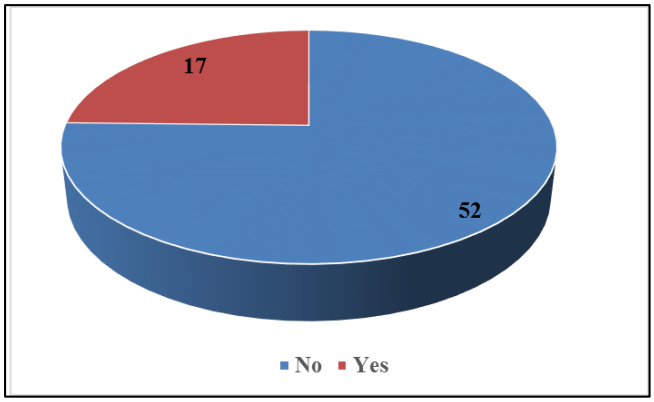

Fig 9: Distribution according to nicu admission

In our study, 17 cases (24.65) needed NICU admission in most of the cases cause is Preterm.

Discussion

This prospective observational study was conducted at ESIC MC- PGIMSR, Department of obstetrics and Gynecology for period of 18 months from December 2016 to June 2018 fulfilling the inclusion criteria in ESIC PGIMSR Hospital, Rajajinagar, Bengaluru.

Successful pregnancy depends on the integration of complicated genetic, hormonal, cellular, and immunological factors. Fully interaction and cooperation of these factors with each other during pregnancy is necessary so fertilization, implantation, and development of the embryo eventually reach fulfilment [2].

Pregnancy failure during the first trimester is common. Indeed, is a physiological mechanism for removing embryos which are mal-developed or chromosomally abnormal. Not all ova exposed to fertilization will become zygote and not all zygote will implant. Of these which implant and produce detectable amount of b –

human chorionic gonadotrophin i.e., chemical pregnancy and some will abort at the time of next menstruation before the woman knows that she is pregnant. Most of the patients have bleeding, pain or both [3].

Vaginal bleeding occurring during the first 12 weeks of pregnancy is known as first trimester bleeding, and by default constitutes a threatened abortion until is identified by non threatening cause [4].

About 16%-25% of all pregnancies are complicated by threatened abortion [4]. and various causes of first trimester vaginal bleeding includes obstetric and non obstetric causes [4]. And Obstetric causes includes implantation bleeding, various types of abortion, ectopic pregnancy, and gestational trophoblastic disease. Non obstetrical cause include cervical erosion, polyp, malignancy, and ruptured varicose vein [4].

Threatened abortion is diagnosed as first trimester vaginal bleeding with closed cervix and confirmed with fetal cardiac activity on ultra sonofigy. Doppler confirmation of fetal heart rate is reassuring and it indicates that bleeding is not related to abortion. After determining the diagnosis, the management is important. Nearly 50% of pregnancies end in pregnancy loss; if pregnancy continues, poor maternal and fetal outcomes such as preterm delivery, preterm prelabour rupture of membrane (PPROM), preeclampsia, placental abruption and intrauterine growth restriction (IUGR) may be seen. It is also known that maternal age, systemic illness such as diabetes mellitus, hypothyroidism, infertility treatment, thrombophillia, maternal weight and uterine structural anomalies will increase the risk of threatened abortion.

Results from our study confirm findings from other authors that threatened Abortion is associated with an increased risk of certain pregnancy related complications namely preterm labour, PROM, abruptio placenta, PIH, IUGR, delivery of Low Birth weight babies, IUFD.

Results of our study and others indicate that in patients with first trimester vaginal bleeding may indicate underlying placental dysfunction, and which may manifest in later pregnancy resulting in adverse outcomes that have also been related to placental dysfunction. In present study 100 women who presented with first trimester vaginal bleeding 31% ended in abortion and 69% continued the pregnancy. Causes for the miscarriage may be due to,bleeding between the chorionic membrane and the uterine wall exerting direct pressure and placental bed disruption [2, 5, 6, 7, 8]. Impaired implantation and inadequate invasion of trophoblasts [8, 9, 10, 11]. Thrombin (tissue factor), generated due to decidual bleeding is a uterotonic agent and may cause spontaneous abortion during early weeks of gestation [2, 8, 9]. Excess amount of thrombin production from decidual expressed tissue factor further impede the ongoing implantation [11], in low lying placenta/placenta previa decidual reaction in lower uterine segment is often inadequate, and this false secondary type of implantation may be defective, resulting in abortion [12].

Our study results are correlating to study done by Patel NG *et al.* 2014, where among 100 patients 64% continued pregnancy and 36% ended in abortion. and similar results are seen in study done by Jahan Ara 2018, Rai P *et al.* 2017, Amirkhani A *et al.* 2013.

It has been found in our study that majority of cases belonged to the age group of 20-29 years (41%) and perhaps the reason is that majority of delivery also occur in this age group as *Mckeon (1954)* concluded that the best time of women to have first baby is between the age of 20-30 years.

In our study most of the patients presented with first trimester bleeding are multigravida (61%), and results are comparable to study conducted by Patel NG 2014, in which majority of the patients are multigravida i.e. 66%.and a study conducted by Jahan Ara *et al.* 2018 (54.5%) and Preeti L *et al.* 2017 also shows bleeding PV in first trimester is commonly seen in multigravida.

In our study in 100 patients, 59 cases presented with spotting PV, in that 84.74% continued and 15.25% aborted. And 41 cases presented with bleeding PV, in that 53.65% ended in abortion and 46.34% continued the pregnancy. Heaviness of bleeding predicts the prevalence of progression to spontaneous abortion and later pregnancy complications [13].

Light bleeding – spotting lasting not more than one week [14].

Heavy bleeding - haemorrhage lasting more than one week with or without clots [14].

Our study results are correlated to studies conducted by Mariam Alselaiti *et al.* 2014 Patel NG *et al.* 2014,PD Kamble *et al.* 2017, P Rai *et al.* 2017, Jahan Ara *et al.* 2018 showed patients presented with spotting PV had more favorable outcome than who presented with bleeding PV.

In our study majority of patients presented with bleeding PV during first trimester are between 7-10 weeks of POG (60%), among these 41.7% ended in abortion, 58.3% continued. And 2 cases presented in <6 weeks of POG ended in abortion, 38% cases presented with bleeding PV at >10 weeks of POG 10.5% ended in abortion and 89.5% continued the pregnancy. Symptoms of threatened abortion before 6th week of gestation carry the highest risk of miscarriage [25]. A study conducted by Kamble PD *et al.* 2017 showed incidence of abortion highest in patients who presented with bleeding PV <6weeks of POG(77%) and significantly less after 10weeks (7%).similar results found in study conducted by Patel NG *et al.* 2014, Manonmani *et al.* 2016, Jahan Ara *et al.* 2018.

In present study out of 69 cases who continued the pregnancy, 21 (30.43%) cases continued till term without any maternal complications. these results are compared with a study conducted by Rai P *et al.* 2017, where in 26% of pregnancies continued till term without any complications. similar results are seen in studies conducted by Marium Alselaiti *et al.* 2014, and by Kamble PD *et al.* 2017.

In our study among 100 patients 69 continued pregnancy beyond the period of Viability and among these the most common maternal complication seen is preterm labor i.e. seen in 23.18% of cases and PPROM in 10.14% of cases Preterm delivery (PTD) is the most commonly seen consequence of bleeding during pregnancy, regardless of gestational age. Outcome may be spontaneous preterm delivery or preterm caesarean section performed in indicated cases [13].

Preterm delivery and PPROM may be due, increased free iron deposits from subchorionic bleeding, hydroxyl radical (oxidative stress) is catalysed damaging the membrane [9, 10], Alteration in vaginal pH due to bleeding might predispose to vaginal infections [15] and prolonged presence of blood acts as nidus for intrauterine infection [5, 7, 16]. Thrombin activation due to bleeding results in production of metalloproteinases and other enzymes resulting in PPROM [2, 17], chronic inflammatory reaction within the deciduas and placental membranes results in rupture of the membranes,

decidual thrombosis, ischemia and necrosis results in vaginal bleeding along with inflammatory response and thrombosis formation [2, 8 9]. Thrombin is a uterotonic agent and may cause preterm labor [9]. Persistent and recurrent placental haemorrhage may stimulate subclinical uterine contractions resulting in cervical changes and eventually rupture of membranes [16], placental insufficiency (due to significant placental separation due to significant subchorionic haematoma) [15].

Our study results are correlating to the study conducted by Patel NG 2014, in which preterm deliveries are seen in 21.9% and PPROM in 18.7%.similar results are seen with study conducted by, PD Kamble 2017, Rai P *et al.* 2017, Manisha Bahad *et al.* 2016, Haleema Yasmin *et al.* 2015, Sarmalkar MS *et al.* 2016, S Agrawal *et al.* 2014, G Mustafa *et al.* 2009.

In present study second most common complication seen is PROM in 10 (14.49%) cases, and PIH in 8 (11.59%) of cases, Placenta Previa in 5 (7.24%), severe PIH with abruptio placenta seen in 2 (2.89%) of cases.

Mechanism involved in Hypertensive disorders, abruption and IUGR and placenta previa

Due to dysfunction of tissue factor expressed in cytotrophoblast and systemic factors results in local production of thrombin and soluble fms-like tyrosine kinase-1,and are involved in development of placental abruption and pre-eclampsia [21], subchorionic haematoma, early proof of abnormal trophoblast invasion and impaired placental function responsible for PIH, abruption, IUGR and also necessitates manual removal of placenta with pathological attachment to the myometrium i.e. placenta accrete [13]. Persistent and recurrent placental haemorrhage results in abruption [5, 7, 16]. Gestational bleeding no associated with placenta previa involved permanent deciduo placental damages leading to impairment of oxygen transfer and fetal nutrition resulting in IUGR [18], and impaired placcentation results in small for gestational age [8].

Placenta praevia occurs when the entire placenta, or in part, implants in the lower uterine segment after 20 weeks' gestation [19]. Placenta previa, one of the common obstetrical cause of vaginal bleeding and could be a cause of first trimester vaginal bleeding [5].

Proposed theories of placenta previa; dropping down theory, persistent of chorionic activity, defective decidua, and big surface area of placenta [20].

Probable aetiology is some local aberration in uterine blood supply, the distinction between the areas of chorionic frondosum and chorion leave does not occur in normal situation and the developing embryo comes to derive its nourishment from a lower region of the uterus than its customary [12] and scarred uterus.

Placental migration (trophotrophism); Gradual formation of the lower uterine segment is sometimes described as 'placental migration'. At 20wks routine scan-30% of placenta to be low lying. About 2% remained as placenta previa at term.In 3rd trimester exponential growth of LUS (10 fold) as compared to placenta, due to this disproportionate growth, there is apparent migration of placenta towards the fundus (better vascularisation as compared to less vascular LUS), failure of this results in placenta previa after 34 weeks.

These results are comparable to a study conducted by Patel NG 2014, PIH in 6.2%, Abruption in 7.8%, Placenta Previa in 3.1%, similar results are found in study conducted by Kamble PD *et al.* 2017, Rai P *et al.* 2017, and Sarmalkar MS *et al.* 2016.

In present study most of the cases delivered vaginally i.e. 47(68.11%) cases, and 22 (31.89%) delivered by caesarean section, similar results are seen in a study conducted by Patel NG *et al.* 2014,wherein 59.5% cases delivered vaginally and 40.5% cases underwent caesarean section. Study conducted by Sukhamoy Barik *et al.* 2016, Manisha Bahad *et al.* 2016 shows most of the patients delivered vaginally.

In our study foetal outcome without any complications are seen in 26 (37.68%) of cases and most common complication seen is preterm babies i.e. 23 (33.33%) cases.Both preterm and PPROM leads to low birth weight and increases the rate of NICU admissions because of prematurity complications such as respiratory distress [9].

Our study results are correlating to study conducted by Sarmalkar MS *et al.*, 2016 in which preterm rate seen is 21%. second most common complication seen is IUGR in 10 (14.5%) of cases.Gestational bleeding no associated with placenta previa involved permanent deciduoplacental damages leading to impairment of oxygen transfer and fetal nutrition resulting in IUGR [18]. our study results are comparable to study conducted by Patel NG *et al.* 2014, Rai P *et al.* 2017, Sukhmamoy Barik *et al.* 2016. in present study complications seen are LBW seen in 7(10.14%) of cases, which is comparable to a study conducted by Sarmalkar *et al.* 2016 where LBW seen in 13% of cases.

Our study shows IUFD 3(4.34%) cases comparable to study conducted by G Mustafa *et al.* 2009, Jahan Ara *et al.* 2018. IUFD (intrauterine foetal demise) cause is due to abruption of placenta, severe PIH, low levels of PAPP-A which causes low levels of active insulin like growth factor (IGF) which have an effect on foetal growth resulting in still birth [8].

In present study NICU admissions are required in 17 (24.65%), most common reason being preterm.These results are comparable to study conducted by Jahan Ara *et al.* 2018, Patel NG *et al.* 2014.

Summary

A prospective study of outcome of pregnancy in 100 cases of patients with first trimester bleeding was undertaken.

The patients were followed up prospectively from examination in

the first trimester until the end of pregnancy and later pregnancy complications like Maternal - Preterm delivery, Pprom, Prom, Low Lying Placenta PIH, Mode of Delivery, and FETAL – Preterm, IUGR, Low Birth Weight, IUFD were determined and the outcome data obtained.

There is no consistent evidence shows that bed rest can affect pregnancy outcome in threatened abortion. However it is not harmful and may provide the patient with some emotional comfort.

In general most do administer progesterone, injection HCG. However progesterone (Vaginal administration) may be indicated in unique circumstances including viable pregnancies achieved with advanced reproductive technology of patients with a history of an inadequate luteal phase.

Studies have shown that although progesterone administration may not necessarily change the outcome of threatened abortion, it may help reduce the severity of symptoms such as pain from cramping and uterine contractions. Empirically there is no role of hormone therapy but undiagnosed deficiency can be corrected by 17 hydroxyl progesterone corporate or Dydrogesterone.

Aspirin may be given to improve placental circulation, especially in elderly patients and in PIH.

Folic acid may be used to prevent neural tube defect and abruptio placenta.

It is observed that early and comprehensive prenatal care can decrease risk of threatened abortion to some extent. So increased antenatal surveillance might identify women within this group who are at increased risk. Knowledge of this increased risk may also facilitate decision making regarding management, mode, place and time of delivery which will inevitably improve pregnancy outcome.

Although from our study it is reassuring that the majority of women with first trimester bleeding have pregnancy outcomes comparable to those without such bleeding it is evident that they face a higher relative risk of some adverse obstetric and neonatal outcomes.

Conclusion

Pregnancy is a major life event. The purpose of pregnancy is to have a healthy mother and baby.

Vaginal bleeding is one of the common presenting complaints during first trimester. So the patient needs proper counselling regarding the outcome and later pregnancy complications possibly by excluding the ectopic gestation and hydatidiform mole, and also necessitates psychological and emotional support to the couples.

It is necessary to do appropriate investigations to identify underlying cause and management accordingly and timely intervention when needed.

References

1. Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, *et al.* William's obstetrics (24th edition.). New York: McGraw-Hill Education, 2014.
2. Rahmani E, Ahmadi S, Motamed N, Khormoji N. The Relation Between Vaginal Bleeding During Pregnancy and Preterm Birth in Patients Admitted to Martyrs Hospital in Persian Gulf. International Journal of Women's Health and Reproduction Sciences. 2016; 4(4):171-175.
3. Barik S, Javed S, Datta S, *et al.* Outcome of pregnancies having bleeding pervagina in the first trimester. J. Evolution Med. Dent. Sci. 2016; 5(55):3750-3755,
4. Ara J, Dahiya K, Dahiya A. Study of maternal and perinatal outcome in women with first trimester vaginal bleeding. International J. of Healthcare and Biomedical Research. 2018; 6(2):122-130.
5. Davari-Tanha F, Shariat M, Kaveh M, Ebrahimi M, Jalalvand S. Threatened abortion: a risk factor for poor pregnancy outcome. acta medica Iranica. 2008; 46(4):314-320.
6. Johns J, Jauniaux E. Threatened miscarriage as a predictor of obstetric outcome. Obstet Gynecol. 2006; 107(4):845-50.
7. Bahad M, Meena Singh B, Chikitsalaya M. A Prospective Study of Outcome of Pregnancy Complicated By Threatened Abortion. IOSR Journal of Dental and Medical Sciences (IOSR-JDMS). 2016; 15(6):97.
8. Akkaya1 H, Uysal G. Relationship between first trimester vaginal bleeding and the risk of placental abruption. medscience. 2018.07.8776
9. Rahmani E, Ahmadi S, Motamed N, Khormoji N. The Relation Between Vaginal Bleeding During Pregnancy and Preterm Birth in Patients Admitted to Martyrs Hospital in Persian Gulf. International Journal of Women's Health and Reproduction Sciences. 2016; 4(4):71-175.
10. Ahmed SR, El-K El-SammaniM, Al-Alaziz Al-Sheeha M, Aitallah AS, Khan FJ, Ahmed SR. Pregnancy Outcome in Women with Threatened Miscarriage: a Year Study. Mat Soc Med. 2012; 24(1):26-28.
11. Lykke J, Dideriksen K, Lidegaard, Langhoff-Roos J. First-Trimester Vaginal Bleeding and Complications Later in Pregnancy. Obstetrical & Gynaecological Survey. 2010; 65(9):563-64.
12. Donald I. Practical Obstetric Problems. New Delhi: P G Publisher, 1988.
13. Rozatika A,Vaginal Bleeding During The First 20 Weeks Of Pregnancy And Its Impact On Adverse Perinatal Outcome ; Archives Of Perinatal Medicine. 2016; 22(1):7-16.
14. AlSelaiti M, AlSherooqi M. Outcome of Pregnancies Complicated by Early Vaginal Bleeding. Bahrain Medical Bulletin. 2014; 36:4.

15. Guruvare S, Medipalli P, Urala SM, Rai L, Hebbar S, Adiga P. Factors influencing pregnancy outcome in women with vaginal bleeding before midpregnancy: a prospective case control study. Int J Reprod Contracept Obstet Gynecol. 2015; 4(3):601-605.
16. Sarmalkar MS, Singh S, Nayak AH. Maternal and perinatal outcome in women with threatened abortion in first trimester. Int J Reprod Contracept Obstet Gynecol. 2016; 5:1438-45.
17. Hackney D, Glantz J. Vaginal bleeding in early pregnancy and preterm birth: systemic review and analysis of heterogeneity. The Journal of Maternal-Fetal & Neonatal Medicine. 2010; 24(6):778-86.
18. Mustafa G, Khurshid R, Mushtaq I, Shamas UL, Mir S. Pregnancy Outcome of Patients Complicated by Threatened Abortion. The Internet Journal of Gynaecology and Obstetrics. 2009; 14(1)1-4.
19. Baskett FT, Calder AA, Arulkumaran S. Munrokerr's Operative Obstetrics; 12th Edition ; New York, Elsevier Ltd, 2014.
20. Dutta DC. Text Book Of Obstetrics including Perinatalogy And contraception; Fifth Edition, 2001, Calcutta
21. Lykke J, Dideriksen K, Lidegaard Ø, Langhoff-Roos J. First-Trimester Vaginal Bleeding and Complications Later in Pregnancy. Obstetrical & Gynecological Survey. 2010; 65(9):563-564.