

Pregnancy Outcome of Patients Complicated By Threatened Abortion

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Abstract

Background: Vaginal bleeding in the first trimester of pregnancy is associated with spontaneous abortion /miscarriage, ectopic implantation, hydatidiform mole, preterm delivery, and lowbirth weight.

Aim: The purpose of this study was to determine the perinatal outcome and pregnancy complication (preterm delivery, preterm prelabour rupture of membrane [PPROM], preeclampsia, placental abruption and intrauterine fetal growth restriction [FGR] of threatened miscarriage.

Methods: This prospective study was carried out in our department of obstetrics and gynaecology at a tertiary care centre from June 2013 to July 2015. 100 patients were included with a history of amenorrhea and urine pregnancy test positive with bleeding per vaginum in the first trimester.

Results: In this case series, 100 cases of first-trimester bleeding were studied. Majority of patients were multigravida (66%). In the present study, 40 patient (40%) had a history of previous abortion out of these 16 (40%) had non-viable outcome and 24 (60%) continued with pregnancy beyond 20 weeks. Majority of patients (68%) presented with spotting, among those 59 (86.7%) had a favorable outcome and only 9 (13.3%) out of 68 patients were aborted. All 10 patients of heavy bleeding category aborted. 5 out of 22 patients of bleeding of moderate category aborted. Patients first-trimester bleeding associated with pain had a poor outcome.

Conclusion: Threatened miscarriage is an important situation to predict both the maternal and fetal outcomes in late pregnancy. Maternal obstetric history on previous pregnancies should be questioned. It is therefore essential to consider these pregnancies as high risk group and provide careful antenatal care.

Keywords: First-trimester, Pregnancy, Preterm birth, Vaginal bleeding

I. Introduction

Pregnancy is always a significant event in a woman's life. Bleeding per vaginum in the first trimester is one of the most common obstetric problems. It is also one of the commonest cause for the majority of the emergency admissions to the obstetrics department and also a common indication for ultrasound examination in early pregnancy.

Nearly twenty five percent (20-25%) of all pregnant women in their first trimester complains of bleeding^{1,2}. In these women who present with bleeding per vaginum, during their first trimester several diagnostic possibilities can be considered. By mere clinical history and examination definitive diagnosis is usually impossible. The causes of bleeding are many and cover a spectrum of conditions ranging from a viable pregnancy to non-viable pregnancy.

The occurrence of vaginal bleeding in the first trimester often causes anxiety about the outcome of the pregnancy. However, vaginal bleeding during the first trimester of pregnancy is a common occurrence.^{3,4} Approximately one third of first trimester bleeding happens in pregnancies that are otherwise normal⁵. Additionally, no anatomical cause can be established in the vast majority of the pregnancies that are complicated by vaginal bleeding⁶.

The purpose of this study was to investigate whether threatened abortion makes pregnancies high risk, what is poor neonatal outcome and which maternal characteristics change these results in our clinic. Answer to these questions can change our antepartum, peripartum and postpartum management. We aimed to investigate threatened abortion and pregnancy outcomes in our patients.

II. Materials And Methods

This prospective observational study was carried out at our institute from July 2013 to June 2015. 100 patients were included with history of amenorrhea and urine pregnancy test positive with bleeding per vaginum in first trimester.

• Inclusion Criteria

In data Collection, Patients who met the criteria of

- (a) Months of amenorrhoea of less than 3 months,
- (b) Positive pregnancy test,
- (c) Bleeding per vaginum

And documented pregnancy outcome were chosen.

- **Exclusion criteria** were
 - a) Emergency cases,
 - b) Abortion diagnosed on the first visit,
 - c) All patients with more than 12 completed weeks of gestation.

The vaginal bleeding history included the duration of bleeding in days, the severity of bleeding and associated abdominal pain. Bleeding was categorized as spotting, moderate, or heavy bleeding according to the self-assessed degree of vaginal bleeding. Ultrasound examination was done in all the 100 patients who were enrolled in this study according to the inclusion criteria at first visit. All such patients were prospectively followed throughout the pregnancy and intrapartum period and their outcomes were studied.

The fetal outcome of the pregnancy was categorized as

- Termination of pregnancy before 20 weeks
 - (a) Spontaneous or induced termination,
 - (b) Congenital malformations which was terminated before 20 weeks
- Continuation of pregnancy beyond 20 weeks
 - (c) Preterm delivery,
 - (d) Low birth weight (<2500kg)
 - (e) Intra uterine growth retardation,
 - (f) Perinatal death,
 - (g) NICU admission and
 - (h) Full term live birth with healthy fetus.

The maternal outcome (only for those patients in which pregnancy continued beyond 20 weeks) are

- (a) Pregnancy induced hypertension,
- (b) Anaemia (pallor and Hb < 10gm% at the time of inclusion in the study)
- (c) PPRM (Amniotic membrane rupture < 37 weeks of gestation),
- (d) Placental abruption,
- (e) Placenta previa,
- (f) Post-partum haemorrhage,
- (g) Mode of delivery
- (h) No complications

III. Results

We applied standard error of proportion (Z test) in which P value was < 0.05 which indicates that there is significant relation seen between the two variables

Table 1 History Of Previous Abortion

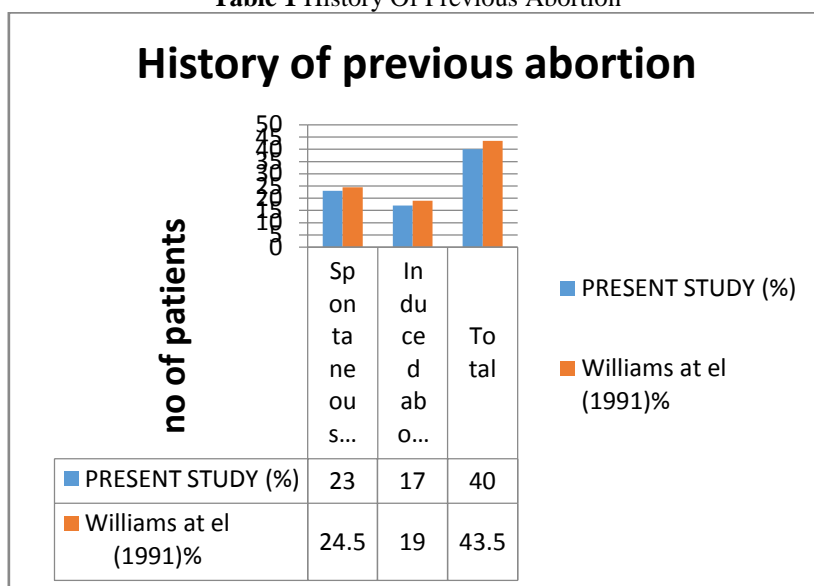


Table 2 Pain In Lower Abdomen

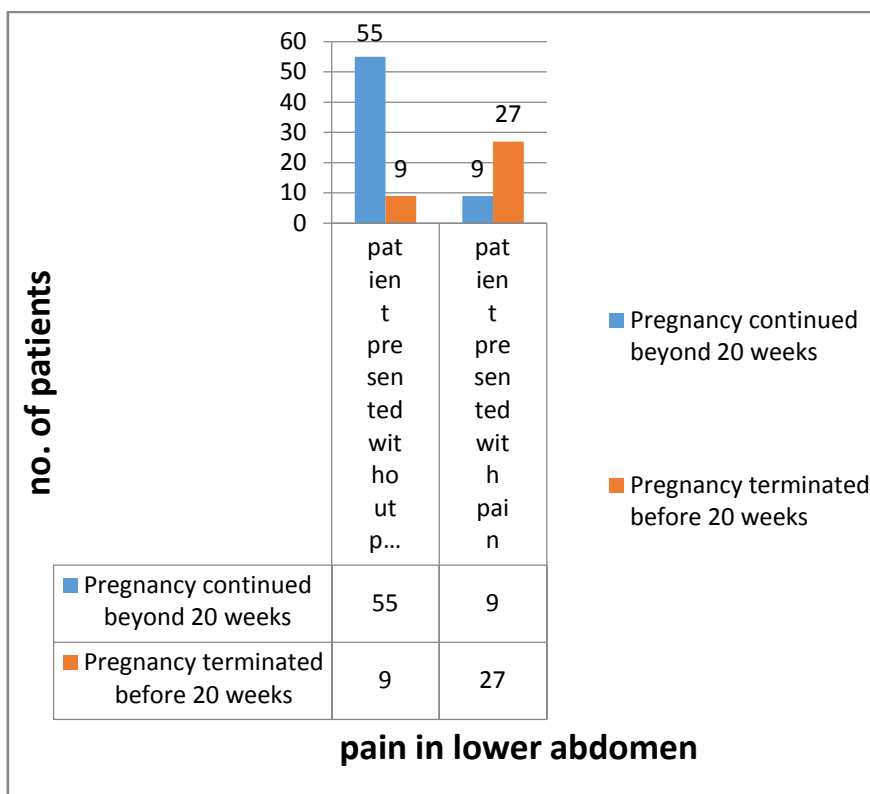


Table 3 threatened Abortion With Irregular G Sac & Large Yolk Sac (N=12) And Outcome Of Pregnancy

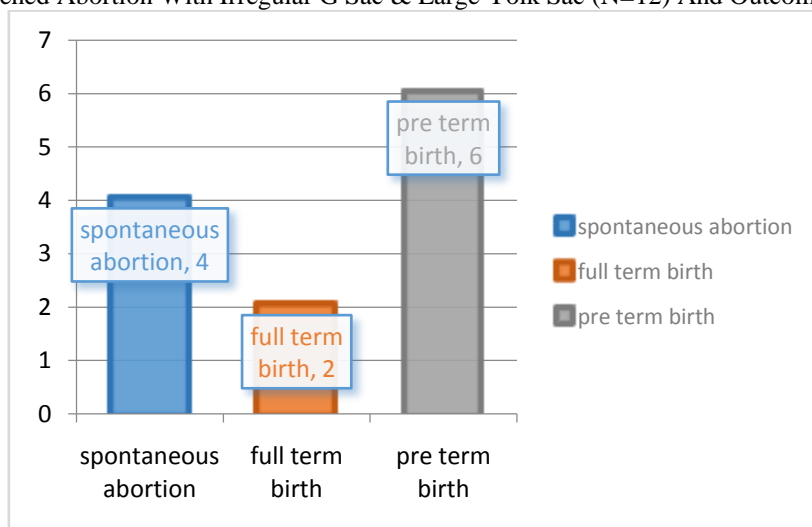


Table 4 Maternal Outcome

Complications	N= 64	Our study%	F. Davari Tanha ⁶⁸ (2009) %
No complication	37	57.8	-
PIH	4	6	4.6
Placenta Previa	2	3	0.6
Abruptio placenta	5	7.5	5.7
PROM	12	18.1	27.5
PPH	4	6	-

Table 6 Fetal Outcome

Outcome	N=64		%	
Full term	50	Vaginal	38	77.2
		LSCS	12	
Pre term	14	vaginal	11	22.8
		LSCS	03	

Among the 64 patients in whom pregnancy continued beyond 20 weeks, 61% of the patients had vaginal delivery and 39% had caesarean section, of this most common indication of CS was foetal distress (60%) in our study.

Table 7 Fetal Outcome In Terms Of Birth Weight

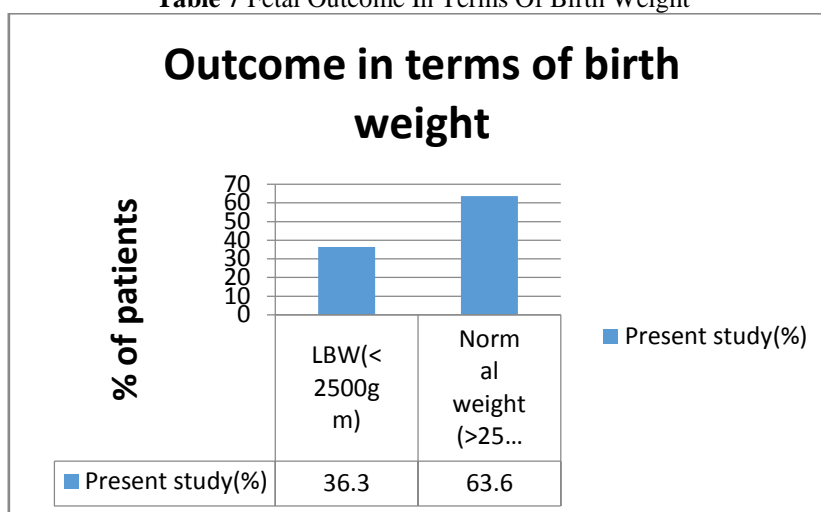


Table 8 Perinatal Outcome

Outcome	N=64	%
IUGR	9	13.6
Preterm	14	22.8
NICU admission	20	30.3
Perinatal mortality	6	9.5

IV. Discussion

This is a prospective study of 100 cases of first trimester bleeding per vaginam, analysed with regards to foeto-maternal outcome.

My observations from this study are as follows:

Majority (68%) of first trimester bleeding occurs in age group of 21-30 years, which is comparable with Williams et al⁶ (1991) in which 86.5% patients were from 20-34 years, But in Sipila P et al⁸ in 1992, Bleeding was most frequent in women of more advanced age (> or = 35 years old), with history of previous abortions. In present study, majority (66%) of first trimester bleeding per vaginam occurs in multigravida which is comparable with Hasan et al (2009)¹⁰ in which 66.1% patients were multigravida.

In present study, 40 patients of first trimester bleeding had a history of previous spontaneous/induced abortion. Out of those 40 patients, 16(40%) pregnancies terminated before 20 weeks and 24(60%) continued beyond 20 weeks.

Out of 36 patients who presented with lower abdominal pain, 27 (75%) pregnancies terminated before 20 weeks and only 9(25%) continued beyond 20 weeks. 64 patients who presented with no pain, only 9(14%) pregnancies terminated before 20 weeks, whereas 55(86%) continued beyond 20 weeks. It suggests first trimester bleeding if associated with pain had poor outcome.

TVS done in every patient at the time of enrolment in the study according to the inclusion criteria. In the present study, status of the pregnancy at the end of first trimester based on clinical and ultrasound diagnosis: 49% pregnancies were intrauterine and normal, 24% were diagnosed as threatened abortions, whereas other 27% were nonviable conceptus. 12 cases of threatened abortion had irregular G-sac or large yolk sac, out of which 2 were born full term healthy, 6 were preterm and 4 were spontaneously aborted.

In patients where pregnancy continued beyond 20 weeks of gestation, the maternal complications were PIH in 6% cases, placenta previa 3%, placental abruption 7.5%, PROM in 18.1% cases and PPH in 6% of cases.

64 pregnancies continued beyond 20 weeks of gestation of which 77.2% patients delivered full term and 22.8% patients delivered preterm. 61% of the patients had vaginal delivery and 39% had caesarean section. Most common indication of CS was foetal distress(60%). Preterm birth rate was 22.8%, 9(13.6%) were IUGR (out of which 7 were preterm IUGR and 2 were full term IUGR), 20(30.3%) NICU admission, 23(36.3%) LBW and 6(9.5%) perinatal mortality.

V. Conclusion

Pregnancy related bleeding is a clinical challenge and is associated with significant maternal and fetal morbidity. The probability of abortion and adverse pregnancy outcome increases as the amount and duration of bleeding increases especially when accompanied with lower abdominal pain.

To the patients presenting with vaginal bleeding, education and proper counselling regarding possible pregnancy outcome could assist them to cope with their concerns about the possibility of abortions or other pregnancy outcome. With a thorough understanding of aetiology and process of first trimester, and appreciation of its emotional impact and significance along with importance to pregnancy outcome, one should make a choice of management which can provide sensitive and complete care to women and this important time keeping in mind our goal of “Healthy Mother and Healthy Baby”.

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