

Clinical evaluation of first trimester bleeding reported in tertiary care institute

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Abstract

Background: The occurrence of vaginal bleeding in the first trimester often causes anxiety about outcome of pregnancy. Usually, the patient will present with vaginal bleeding and mild-to-moderate suprapubic or midline lower abdominal pain that may radiate to the lower back. **Aims and Objectives:** To evaluate the clinical findings of patients presenting with first trimester bleeding in tertiary care institute. **Materials and Method:** In the present study all pregnant women presenting with per vaginal bleeding during the first trimester were enrolled. All the selected cases were evaluated by using semi-structured questionnaire. A detailed history and comprehensive clinical examination including general, systemic, per abdomen and per vaginal examination were performed to arrive at a clinical diagnosis. Ultrasonography was performed in all the selected cases. Findings of clinical examination and ultrasonography findings were recorded. **Results:** Majority of the patients (47.66%) were in the age group of 26-30 years of age followed by 21-25 years (24.30%) and 31-35 years of age (18.69%). 71 (66.36%) patients were multi gravid. Majority of the cases presented with the gestational age less than 8 weeks. 53.27% women presented with 1-2 days history of per vaginal bleeding. Pain in abdomen was the presenting complaint in 48 (44.86%) women. Clinically threatened abortion was diagnosed in 82 (76.64%) women whereas incomplete abortion was diagnosed in 7(6.54%) women. Complete abortion and ectopic pregnancy was diagnosed in 5 (4.67%) cases each. On ultrasound threatened abortion was diagnosed in 51 (47.66%) women. Complete abortion was diagnosed in 13 (12.15%) women and missed abortion was diagnosed in 12 (11.22%) women. Incomplete abortion was diagnosed in 9(8.41%) women respectively. **Conclusion:** Thus we conclude that first trimester bleeding was seen commonly in multigravida and presented with the gestational age less than 8 weeks. Bleeding less than 2 days with pain in abdomen was the common presentation. Uterus size was less than 10 weeks, closed cervix and full fornices were the most common clinical examination findings. Threatened abortion was most common diagnosis on clinical examination followed by incomplete abortion, complete abortion and ectopic pregnancy. **Key Words:** First trimester bleeding, clinical evaluation, abortion.

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INTRODUCTION

First trimester bleeding is any vaginal bleeding during the first three months of pregnancy i.e. till 12 weeks. Vaginal bleeding may vary from light spotting to heavy bleeding

with clots. Vaginal bleeding is a common problem in early pregnancy, complicating 20% to 25% of all pregnancies¹. The most common indication for emergency referral in early pregnancy is vaginal bleeding. 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 difficult. 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 outcome of pregnancy. Approximately, one-third of first-trimester bleeding happens in pregnancies that are otherwise normal.² In addition, no anatomical cause can be established in the vast majority of pregnancies that are

complicated by vaginal bleeding.³ Half of the women who experience first-trimester vaginal bleeding will continue their pregnancies, and other half will experience an abortion.⁴ Usually, the patient will present with vaginal bleeding and mild-to-moderate suprapubic or midline lower abdominal pain that may radiate to the lower back.⁵ The clinician should ask about prior confirmation of pregnancy, last known menstrual period, when the bleeding began, quantity and character of bleeding, and current medications (ovulation agents put a woman at risk for a heterotopic pregnancy, which is an IUP and an EP simultaneously).⁶

MATERIALS AND METHOD

The present cross sectional study was conducted in the department of obstetrics and gynaecology of MIMSR Medical College, Latur, Maharashtra during November 2014 to November 2015 with the aim to study first trimester bleeding cases. Following inclusion and exclusion criteria was used to select the study subjects.

Inclusion Criteria

- All pregnant women presenting with per vaginal bleeding.
- Gestational age less than 12 weeks.

Exclusion Criteria

- All causes of vaginal bleeding not related to pregnancy.
- All pregnant patients with per vaginal bleeding whose gestational age is more than 12 weeks.
- Women not willing to participate in the study.

Thus by using the above mentioned inclusion criteria and exclusion criteria total 107 women with first trimester bleeding were included in the present study. The semi-structured questionnaire had been pretested amongst the randomly selected pregnant women with first trimester bleeding who meet the eligibility criteria for the study. From these results, questionnaire had been modified and validated for the entire study. A detailed history and a comprehensive clinical examination including general, systemic, per abdomen and per vaginal examination were performed to arrive at a clinical diagnosis. Ultrasonography was performed in all the selected cases. Findings of clinical examination and ultrasonography findings were recorded. All responses were tabulated by the investigator using Microsoft-Excel 2007 Software. Graphical representations were made wherever necessary.

RESULTS

Table 1: Distribution of patients according to various characteristics

		Number of patients	Percentage
Age	≤20yrs	5	4.67
	21 to 25 yrs	26	24.30
	26 to 30 yrs	51	47.66
	31 to 35 yrs	20	18.69
	>35yrs	5	4.67
Gravida	Primigravida	36	33.64
	Multigravida	71	66.36
Period of gestation (weeks)	<8	46	42.99
	8-10	41	38.32
	>10	20	18.69
Duration of bleeding	1-2 days	57	53.27
	3-4 days	37	34.58
	5-6 days	12	11.21
	≥7 days	1	0.93
Pain abdomen	Absent	59	55.14
	Present	48	44.86
Total		107	100

It was observed that majority of the patients (47.66%) in the present study were in the age group of 26-30 years of age followed by 21-25 years (24.30%) and 31-35 years of age (18.69%). It was seen that 71 (66.36%) patients were multi gravid whereas remaining 36 (33.64%) were primigravida. The most common presentation with first trimester bleeding (42.99%) was with the gestational age less than 8 weeks followed by 8-10 week (38.32%). It was observed that 53.27% women presented with 1-2 days history of per vaginal bleeding. 34.58% of women had given history of per vaginal bleeding since 3-4 days. Pain in abdomen was the presenting complaint in 48 (44.86%) women.

Table 2: Distributions of women according to clinical examination findings

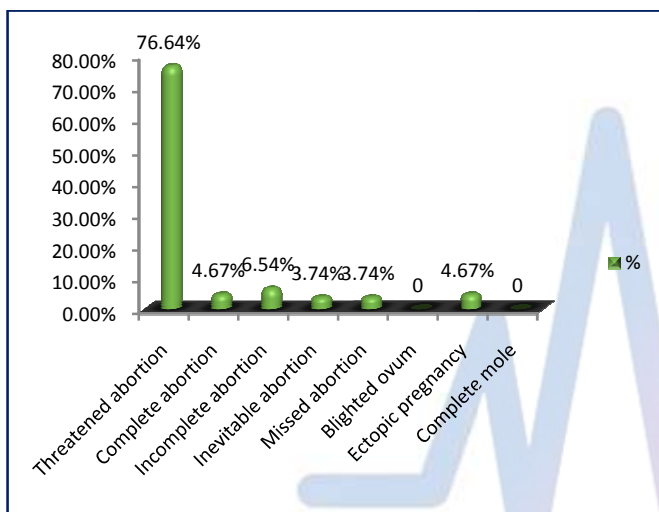
Physical examination	Number	%
Uterus size	<10	86
	10-12	5
	Bulky	16
Cervix	Closed	91
	Open	16
Fornices	FF	102
	Tenderness	5

On clinical examination it was observed that in 86 (80.37%) women uterus size was less than 10 weeks. Cervix was closed in majority of the women (91 women; 85.05%). Fornices were full in 102 (95.33%) women whereas tenderness was elicited in 5 (4.67%) women.

Table 3: Distribution according to clinical diagnosis

Clinical diagnosis	number of cases	Percentage
Threatened abortion	82	76.64
Complete abortion	5	4.67
Incomplete abortion	7	6.54
Inevitable abortion	4	3.74
Missed abortion	4	3.74
Blighted ovum	0	0.00
Ectopic pregnancy	5	4.67
Complete mole	0	0.00

Clinically threatened abortion was diagnosed in 82 (76.64%) women whereas incomplete abortion was diagnosed in 7(6.54%) women. Complete abortion and ectopic pregnancy was diagnosed in 5 (4.67%) cases each.

**Figure 1:** Distribution according to clinical diagnosis**Table 4:** Distribution according to Ultrasound Diagnosis

Ultrasound diagnosis	number of cases	Percentage
Threatened abortion	51	47.66
Complete abortion	13	12.15
Incomplete abortion	9	8.41
Inevitable abortion	5	4.67
Missed abortion	12	11.22
Blighted ovum	10	9.35
Ectopic pregnancy	5	4.67
Complete mole	2	1.87

On ultrasound threatened abortion was diagnosed in 51 (47.66%) women. Complete abortion was diagnosed in 13 (12.15%) women and missed abortion was diagnosed in 12 (11.22%) women. Incomplete abortion was diagnosed in 9 (8.41%) women respectively.

DISCUSSION

In the present study it was observed that majority of the patients (47.66%) in the present study were in the age group of 26-30 years of age. It was followed by 21-25 years (24.30%) and 31-35 years of age (18.69%). Thus

the majority of the women were in the peak age group of fertility. Similar findings were also reported by Uerpairojkit *et al*⁷, Asha Hanamshetty *et al*⁸, Mamatha Shivanagappa *et al*⁹, Gawade S *et al*¹⁰ and S. Sujatha *et al*¹¹. It was seen that 66.36% patients were multi gravid whereas remaining 33.64% were primigravida. The findings were comparable with results reported by Asha Hanamshetty *et al*⁸ and S. Sujatha *et al*¹¹. Increase in parity is associated with increased risk of spontaneous abortion and hence first trimester bleeding per vaginum. Majority of the patients (42.99%) with first trimester bleeding were with the gestational age less than 8 weeks followed by 8-10 week (38.32%). The findings of the present study were comparable with findings observed by Mamatha Shivanagappa *et al*⁹ and S. Sujatha *et al*¹¹. It was observed that 53.27% women presented with 1-2 days history of per vaginal bleeding. 34.58% of women had given history of per vaginal bleeding since 3-4 days. Pain in abdomen was the presenting complaint in 44.86% women. On clinical examination it was observed that in 80.37% women uterus size was less than 10 weeks. Cervix was closed in majority of the women (85.05%). Fornices were full in 95.33% women whereas tenderness was elicited in 4.67% women. The findings were comparable with finding observed by Mamatha Shivanagappa *et al*⁹ where 66.7% cases had uterine size <10 weeks and 33.3% cases had uterine size between 10 and 12 weeks. Cervical Os was open in 14% cases and closed at 86% cases. Fornices were free in 97% cases, and forniceal tenderness was present in 3% cases. It was seen that clinically threatened abortion was diagnosed in 76.64% women whereas incomplete abortion was diagnosed in 6.54% women. Complete abortion and ectopic pregnancy was diagnosed in 3.74% cases each. Thus threatened abortion was the most common finding on clinical examination. Gawade S *et al*¹⁰ observed threatened abortion as the most common clinical diagnosis (86.67%) in patients presenting with first trimester bleeding per vaginum. Other cases were diagnosed as missed abortion (5.33%), incomplete abortion (4.0%), ectopic pregnancy (2.0%), hydatiform mole (0.67%), threatened abortion with cervical polyp (0.67%) and complete abortion (0.67%). Similar findings were also reported by Asha Hanamshetty *et al*⁸, Mamatha Shivanagappa *et al*⁹ and S. Sujatha *et al*¹¹, Damania *et al*¹² and Chaudhary *et al*¹³. Ultrasonography was performed in all the women in the study and threatened abortion was confirmed in 47.66% women. Complete abortion was diagnosed in 12.15% women and missed abortion was diagnosed in 11.22% women. Incomplete abortion was diagnosed in 8.41% women respectively. Gawade S *et al*¹⁰ reported that on ultrasonography threatened abortion was the most common diagnosis (44%) followed by

missed abortion (22%). Blighted ovum was a new diagnosis in 12.67% of cases which cannot be diagnosed by clinical methods. The findings of the present study were also comparable with the findings observed by Asha Hanamshetty *et al*⁸, Mamatha Shivanagappa *et al*⁹ and S. Sujatha *et al*¹¹ in their study.

CONCLUSION

Thus we conclude that first trimester bleeding was seen commonly in multigravida and presented with the gestational age less than 8 weeks. Bleeding less than 2 days with pain in abdomen was the common presentation. Uterus size was less than 10 weeks, closed cervix and full fornices were the most common clinical examination findings. Threatened abortion was most common diagnosis on clinical examination followed by incomplete abortion, complete abortion and ectopic pregnancy.

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