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Original Research Article

Evaluation of First Trimester Vaginal Bleeding

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Abstract

Introduction: First trimester Vaginal bleeding associated with or without pain abdomen is a common presentation in ANC clinics and emergency.

Aims and Objectives: To identify the magnitude of the complication of vaginal bleeding in the first trimester of pregnancy in this part of our state, to find out the causes of bleeding and its outcome at the end of first trimester.

Materials and Methods: The present study was conducted in the Department of Obstetrics and Gynaecology, MKCG Medical College Hospital, Berhampur from January 2019 to December 2019.476 women were clinically evaluated for diagnosis and their outcome at the end of first trimester.

Results: Majority belonged to the age group of 21-25yrs and mostly primigravida (34%). Abortion accounted for 80.5% of cases followed by ectopic in 13.8% and molar pregnancy in 5.7% of cases. Out of the cases of abortions, the clinical diagnosis was threatened abortion in 35.9%, incomplete abortion in 22.5%, missed abortion in 12.4%, inevitable abortion in 6.5%, and complete abortion in 3.2% The overall rate of continuation of pregnancy in the study is 85/476 i.e.17.6%.

Conclusion: According to the result of the present study first trimester vaginal bleeding predicts the future of pregnancy at the end of first trimester. Diagnosis of a normal intrauterine pregnancy at this stage assists the physician in expectant management and gives a psychological boost to the patient.

Introduction

First trimester is described as the period of first twelve weeks of pregnancy according to last menstrual cycle. During the first trimester of pregnancy, a unique and dramatic sequence of events occurs, defining the most critical and tenuous period of human development; the remarkable transformation of a single cell into a recognizable human being [1] Because of the complex sequence of events that accompany the first trimester development, it is not unusual that pregnancy related complications are more common in this period compared to other

trimesters [2]. Vaginal bleeding associated with or without pain abdomen is the commonest presentation in ANC clinics and emergency room. It is estimated to be as high as 15 - 25% of all gestations [3]. Vaginal bleeding can be a normal sign of pregnancy as in implantation bleeding, may be the presenting symptom of spontaneous abortion (30%), or may be the sign of a pathologic condition such as ectopic pregnancy (2-5%) or gestational trophoblastic disease (0.2%). Estimates suggest that approximately 50% of these pregnancies will continue and survive up to twenty weeks [4, 6]. But generally, first trimester bleeding is accepted as risk factor for poor fetal prognosis [8]. So, 15.0% of clinically recognized pregnancies are spontaneously miscarried; the loss rate estimated is at two to three times higher with very early and often clinically unrecognized pregnancy [8, 9]. Delay in the management may threaten life of patient as in cases of ectopic pregnancy.

With this background knowledge the present study was proposed to identify the magnitude of the complication of vaginal bleeding in first trimester of pregnancy in this part of our state, to find out the causes of bleeding, to follow up cases with viable pregnancy to the end of first trimester to see the outcome and for early surgical intervention where required[14, 18].

Material and Method

The present study entitled "CLINICAL EVALUATION OF FIRST TRIMESTER VAGINAL BLEEDING" was conducted in the Department of Obstetrics and Gynaecology, MKCG Medical College Hospital, Berhampur from January 2019 to December 2019.

Selection of Cases: Patients having amenorrhea of equal to less than 12 weeks, bleeding per vaginum irrespective of their age, parity and with a positive urine beta HCG were included in the study. Women with chronic medical illness including diabetes, thyroid disorder and hypertension and women with a history of infertility were excluded from the study[3].

Method of Study: All cases of bleeding before or at 12 weeks gestation were first of all hospitalized. A detailed history of each patient was obtained and recorded. The date of last menstrual period was ascertained, and gestational age calculated. Clinical details like age, parity, obstetric history, previous menstrual history, period of amenorrhea at first bout of bleeding and its duration, history of expulsion of products of conception if any were recorded. After taking a written informed consent, patients were kept under surveillance. A detailed, judicious but careful general and physical examination, systemic examination, per speculum examination and bimanual examination of each patient was done. The condition of cervical os and the amount of bleeding was recorded. The fornices were palpated particularly for any mass or, tenderness by bimanual examination and the size of the uterus was made out and all these findings were recorded in the proforma. Urine beta HCG was performed, and positive results were included as cases.

Cases which were clinically diagnosed as ectopic pregnancy and were hemodynamically unstable were excluded and immediately put up for laparotomy. The rest of the cases were then subjected to sonographic evaluation. On establishment of final diagnosis, appropriate treatment like laparotomy in case of ectopic pregnancy & evacuation in case of missed abortion, blighted ovum, incomplete abortion, inevitable abortion and hydatidiform mole was done. Cases diagnosed as complete abortion were allowed to go to home. Cases diagnosed to have viable pregnancy were put on absolute bed rest and other supportive treatment with micronised progesterone and sedation under closed monitoring and observation was given. On stoppage of bleeding cases were discharged from the hospital with an advice of repeat USG at 12weeks.

Observation

This study includes all first trimester pregnant cases presenting with vaginal bleeding to the Department of O&G (ANC clinic and Indoor) M.K.C.G. Medical College, Berhampur during the study period. The data observed are as follows

Table 1: Incidence of Vaginal Bleeding in First Trimester

Total No. of Pregnancies	Bleeding in First Trimester	Percentage (%)
5166	476	9.2

Table – 1 show that the total number of pregnancies during the study period was 5166, out of which 476 numbers of cases presented with vaginal bleeding in first trimester. Thus, the incidence of first trimester vaginal bleeding in this study is 9.2%.

Table 2: Distribution of Patients in Different Age Groups

Age in Year	No. of Cases	Percentage (%)
Upto 20	84	17.6
21-25	165	34.7
26-30	106	22.3
31-35	84	17.6
36-40	31	6.5
>40	6	1.3
TOTAL	476	100

Considering the number of patients, it is evident from Table-II that, the maximum number of patients were in the age group of 21-25 years (34.7%) and least number of patients were in age group of > 40 years (1.3) followed by 36 – 40 yrs(6.5)

Table 3: Number of Patients in Terms of Gravida

Age in Year	No. of Cases	Percentage (%)
G_1	162	34.0
G_2	124	26.1
G_3	98	20.6
G_4	62	13.0
G_5 or more	30	6.3
TOTAL	476	100

It is shown from Table-III that maximum numbers of patients were primigravida i.e. 34% and least with gravida 5 or more (6.3%). Incidence of abortion decreased with increase in parity.

Table 4: Duration of Pregnancy at the Time of Bleeding

Duration In Weeks	Abortion Nos	% N=383	Ectopic Nos	% N=66	Molar Nos	% N=27	Total Nos	%
< 8Weeks	53	13.8	41	62.1	4	14.8	98	20.6
8 – 10 Wks	222	58.0	23	34.8	12	44.4	257	54
11 – 12 Wks	108	28.2	2	3.1	11	40.8	121	25.4
TOTAL	383	100	66	100	27	100	476	100

Table-IV shows that, numbers of patients presented with bleeding at < 8weeks were 98 (20.6%), 8 – 10 weeks 257(54%) and at 11-12 weeks 121(25.4%) cases. Out of 383 cases of abortion 53(13.8%) came at < 8 weeks, 222(58.0%) at 8-10 weeks and 108 (28.2%) at 11-12 weeks. Out of 66 cases of ectopic pregnancy 41 cases (62.1%) came at < 8 weeks, 23(34.8%) at 8-10 weeks and 2 (3.1%) at 11-12 weeks. Out of 27 cases of

molar pregnancy 4 cases (14.8%) came at < 8 weeks, 12 (44.4%) at 8-10 weeks and 11 (40.8%) at 11-12 weeks.

Table 5: Distribution of Cases According to Clinical Diagnosis

Clinical Diagnosis	No. of Cases	Percentage
Abortions	383	80.5
Threatened abortion	171	35.9
Incomplete abortion	107	22.5
Missed abortion	59	12.4
Inevitable abortion	31	6.5
Complete abortion	15	3.2
Ectopic Pregnancy	66	13.8
Hydatidiform Mole	27	5.7
Total	476	100

It was found from Table – V that spontaneous abortion accounted for 80.5% of cases followed by ectopic in 13.8% and molar pregnancy in 5.7% of cases. Of the abortions maximum numbers of patients were clinically diagnosed as threatened abortion (35.9%) followed by incomplete abortion (22.5%), missed abortion (12.4%), inevitable abortion (6.5%) and complete abortion (3.2%).

Table 6: Duration of Bleeding and its Relationship with Outcome in Viable Pregnancy

Duration In Days	Viable	Viable At End of 12 Wks		Aborted	
	NO.S	NO.S	%	NO.S	%
> 2 DAYS	**31**	**16**	**51.6**	**15**	**48.4**
<2 DAYS	**78**	**69**	**88.5**	**9**	**11.5**

Table VI shows that in cases in which the bleeding was more than 2 days, 31 cases, and 16 (51.6%) was continuing but 48.4& had aborted after detection of cardiac activity. In patients who had bleeding for less than 2 days, 78 cases, 69 had viable pregnancies at the end of 12 week. 9 cases (11.5%) had aborted

Evaluation of Follow Up Cases (N = 140)
Out of 476 cases, 140 cases were discharged and asked to come for follow up at 12weeks. 85 pregnancies had continued successfully till 12weeks accounting to 60.7%.

Discussion

Incidence

In our hospital, during the study period, there were 5166 pregnancies and 476 cases presented with bleeding in first trimester of pregnancy giving rise to incidence of first trimester vaginal bleeding of 9.2%(Table-I). Lykke et al [10] reported incidence of 15-25%. Pernoll [11] stated that more than 25% of all gestation will present to a health care provider in early pregnancy with vaginal bleeding and / or pelvic pain. M. Ali [12] in his study of 425 patients documented 52 patients with first trimester vaginal bleeding giving an overall incidence of first trimester vaginal bleeding as 12.23%. Thus, the incidence of 9.2% observed in the present study is lower in comparison to all the above authors except for M. Ali. The disparity could be due to inclusion of cases of pelvic pain with and without bleeding by Pernoll. In our region due to lack of awareness and availability of health facility, women prefer not to contact any health professional after an episode of vaginal bleeding or even after a miscarriage [31] and this may add to the low incidence rate reported in the study.

In present study, women who had viable pregnancy in the beginning 60.7% continued their pregnancy. In Zhila Amirkhani M.D. et al. study [3], 70% of women who were pregnant with first trimester vaginal bleeding continued their pregnancy which showed that more than half of women selected in study terminated their pregnancy. Of the total of 476 cases, the maximum numbers of patients were in the age group of 21 - 25 yrs (34.7 %) with the median age of 25 years and the least number of patients (1.36%) were in age group of >40 yrs. Evaluating the demographic presentation in terms of gravida of patients, maximum numbers of patients were primigravida i.e. 34%. Incidence of abortion decreased with increase in parity which corresponds FMS Basama [14] who reported 53.3% of primigravida in his study. In study by M. Ali [12] maximum number of patients were in the range 21-30 years, but maximum was in second or third gravida. Primigravida constituted the minimum.

Clinical profile:

There were 98 (20.6%) cases of bleeding with amenorrhea less than 8 weeks of duration. 257 cases (54.0%) between 8-10 weeks and 121 (25.4.%) cases had amenorrhea of 11-12 weeks of gestation.

Iqbal J. [15] in his study found 34% of patient were at 10 weeks of gestation, 17% were at 11 weeks, 13% at 9 weeks, 5% were at 6 weeks while 3% were at 7 weeks of gestation. This finding is similar to the present study. Out of 66 cases of ectopic pregnancy 41 (62.1%) cases presented before 8 weeks. This is similar to as stated by Rock John A. [16].

Clinical Diagnosis

On admission, the cases were clinically diagnosed to be abortion in 383 (80.5%), ectopic pregnancy in 66 (13.8%) cases and molar pregnancy in 27 (5.7%) cases. Out of the cases of abortion, the commonest type of abortion was threatened abortion diagnosed in 171 (35.9%) cases, followed by incomplete abortion in 107 (22.5%) cases, missed abortion in 59 (12.4%)cases, inevitable abortion 31 cases (6.5%), and complete abortion in 15 (3.2%) of cases . In present study, spontaneous abortion, Ectopic and trophoblastic diseases were majorly the reasons for first trimester pregnancy. Similar results were observed in Dogra et al. [13]

According to IJOG – 2000 61% constituted all forms of abortion. 19% were threatened abortions with successful outcome 79%. The values are very similar to present study

In the study by M. Ali [12], out of total 52 patients, incomplete abortion was diagnosed clinically in 20 (38.46%), threatened abortion in 13 (25%) cases and inevitable abortion in 11 (21.15%). ectopic pregnancy was suspected in 4 (7.49%) and molar pregnancy in 3 (5.76%).

In most of the literature the incidence of ectopic pregnancy has been stated as 16 in 1000 pregnancies or 2% [17]. In the present study the rate of ectopic pregnancy is very high at 13.8%. This most significant finding can be explained on the basis of

- Increasing prevalence of sexually transmitted infections and PID in this region.
- Repeated induced abortion as a method of contraception.
- Popularity of contraception that predisposes pregnancy failures to be ectopic pregnancy
- Tubal sterilization techniques mostly preferring under local anesthesia.

In the present study true viable pregnancy account for only 19.5% of all the cases. It is lower than most of the studies except for M Ali. This can be mostly because of lack of awareness and approachability in our area

Summary & Conclusion:

The study includes 476 cases of vaginal bleeding in first trimester of pregnancy with incidence of 9.2%. Majority of cases (34.7%) were within the age group of 21-25

years and quite a good number (17.6%) were below 20 years of age. Majority of cases (34.0%) were primigravida. Most of the cases (54%) seeked medical attention at a gestational age of 8-10 weeks except in ectopic pregnancy (62.1%) of who presented in less than 8 weeks.

The clinical diagnosis was abortion in 80.5%, ectopic pregnancy in 13.8% and molar pregnancy in 5.7% Out of the cases of abortions, the clinical diagnosis was threatened abortion in 35.9%, incomplete abortion in 22.5%, missed abortion in 12.4%, inevitable abortion in 6.5% and complete abortion in 3.2%. out of 140 follow up cases 85 cases continued till 12 weeks.

From the present study it has been observed that vaginal bleeding is a leading cause of presentation during the first trimester of the pregnancy. Clinical assessment of the pregnancy is very important for early diagnosis and prevention of catastrophe like ruptured ectopic. Considering the results of present study, first trimester bleeding is a predicting factor in terms of pregnancy outcome. It is necessary to sensitize the pregnant women in this regard for better follow up.

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