

Observational Study of Patients Presenting with Bleeding in First Trimester

Sonal Nandekar¹, Mugdha Jungari², Deepika Dewani³, Mrunal Nakade⁴

¹Assistant Professor, ²Associate Professor, Dept. of Obstetrics and Gynecology Datta Meghe Medical College, Shalinitai Meghe Hospital and Research Centre, Hingana, Nagpur, ³Assistant Professor, ⁴Junior Resident, Dept. of Obstetrics and Gynecology Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardha

Abstract

Objective: First trimester is an important period during which there is risk of bleeding and may lead to spontaneous abortion. More than 80% spontaneous abortions occur in first trimester. The aim of this study was to determine the causes of first trimester bleeding.

Method: This was a cross sectional descriptive study conducted at Shalinitai Meghe hospital and Research centre Hingana, Nagpur during January 2020 to June 2020. The patients presenting to OPD with history of bleeding or spotting per vaginum, positive urine pregnancy test and less than 12 weeks of gestation were included in this study. Clinical examination and ultrasonography was done.

Result: Most of the patients presented with moderate bleeding and associated pain. The duration of bleeding was 2 to 5 days. Majority of cases were between 4-8 weeks (69.5%). History of prior miscarriage was present in 23.7%. 61% of cases were anemic. Threatened abortion was most common in patients presenting with bleeding per vaginum (in 47.5%). 18.6% patients were with incomplete abortion and 11.8% had complete abortion. There were 2 cases of unruptured ectopic pregnancy and 1 case of ruptured ectopic pregnancy. Salpingectomy was done in all the 3. Dilatation and evacuation was done in 12 cases. Gestational sac was present in 52 cases and the appearance was normal in 53.8% cases. Yolk sac was present in 65.4% cases. Fetal pole and cardiac activity was seen in 57.7%cases.

Conclusion: Bleeding in first trimester of pregnancy is the common complaint with which the pregnant women presents to the health care worker. The commonest cause is the threatened abortion. Other causes are incomplete, complete and missed abortions. Bleeding in early pregnancy may be early presentation of a serious situation like ectopic pregnancy. Ultrasonography, especially the Trans Vaginal is very important in concluding the causes of bleeding. Pregnant women should be educated in the first visit to antenatal OPD itself for the symptoms like bleeding per vaginum and to seek help from health care worker as soon as possible.

Keywords: *Vaginum, pregnant women, bleeding, first trimester.*

Introduction

First trimester is an important period during which there is risk of bleeding and may lead to spontaneous abortion. More than 80% spontaneous abortions occur in first trimester¹. The causes for bleeding in first trimester can be spontaneous abortion, induced abortion, ectopic pregnancy, molar pregnancy and local factors. Terms that are used to describe bleeding during first trimester

Corresponding Author:

Dr. Mugdha Jungari

Associate Professor Dept. of Obstetrics and Gynecology, Datta Meghe Medical College, Shalinitai Meghe Hospital and Research Centre, Hingana, Nagpur
e-mail: ambad.sawan@gmail.com

are threatened, inevitable, incomplete, complete and missed abortion¹.

The various possible causes of spontaneous miscarriages are abnormal conceptus, immunological factors, uterine abnormalities, endocrine factors, maternal diseases, infections². The factors responsible for spontaneous abortion can be advancing maternal age, medical disorders, infections, medications, uncontrolled diabetes mellitus, thyroid disorders^{3,4}.

Pregnancies with first trimester bleeding and subchorionic hematoma were associated with similar risk of miscarriage and antepartum haemorrhage compared to patients with first trimester bleeding without subchorionic hematoma. Pregnancies with first trimester bleeding and subchorionic hematoma were associated with similar risk of miscarriage and antepartum haemorrhage although increased risk of preeclampsia, fetal growth limits, premature pregnancy, non-reassuring fetal heart rhythm, caesarean delivery and low birth weight.⁵⁻⁷

Material and Method

This was a cross sectional descriptive study conducted at Datta Meghe Medical College, Shalinitai Meghe hospital and Research centre Hingana, Nagpur in collaboration with Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardhaduring January 2020 to June 2020. The patients presenting to OPD with history of bleeding or spotting per vaginum, positive urine pregnancy test and less than 12 weeks of gestation were included in this study after prior informed consent. The pregnant women with history of intake of MTP pills were excluded from study. Clinical examination was done. Ultrasonography was done to note crown rump length, gestational sac, yolk sac, fetal pole and fetal cardiac activity.

Result

First trimester bleeding is a common problem during pregnancy and is a cause of major concern for the patient and family. The incidence of miscarriage is generally considered to be about 15% of all pregnancies⁴. Most of the patients presented with moderate bleeding and associated pain. The duration of bleeding was 2 to 5 days. This study included pregnant women from age 18 to 44 years. Maximum number was seen in the age group 26-30 years (59.4%)

Table 1: History of Prior Miscarriage

History of prior miscarriage	Number of cases (59)	Percentage
Present	14	23.7
Absent	45	76.3

In 23.7% women, history of previous spontaneous abortion was present. No such history was present in 76.3% cases.

Table 2: Gravida status of patients

Number of gravida	Number of cases (59)	Percentage
1	17	28.8
2	11	18.7
3	19	32.2
>=4	12	20.3

Out of total cases, 28.8% cases were primigravida, 18.7% were second gravida, 52.5% cases were multigravida.

Table 3: Weeks since Last Menstrual period (LMP)

Weeks since LMP	Number of cases (59)	Percentage
<6	05	8.5
6-8	41	69.5
8-12	13	22

Majority of cases were between 6-8 weeks(69.5%). 8.5% cases were less than 6 weeks. 22% cases were between 8-12 weeks.

Table 4: Hemoglobin level

Hemoglobin level (gm/dl)	Number of cases (59)	Percentage
<7	08	13.5
7-11	28	47.5
>11	23	39

61% of cases were anemic. 13.5% cases were severely anemic and required blood transfusion.

Table 5: Clinical Diagnosis

Clinical Diagnosis	Number of cases (59)	Percentage
Threatened abortion	28	47.5
Incomplete abortion	11	18.6
Complete abortion	07	11.9
Missed abortion	10	16.9
Ectopic gestation	03	05.1

Threatened abortion was most common in patients presenting with bleeding per vaginum (in 47.5%). 18.6% patients were with incomplete abortion and 11.8% had complete abortion. There were 2 cases of unruptured ectopic pregnancy and 1 case of ruptured ectopic pregnancy. Salpingectomy was done in all the 3. Dilatation and evacuation was done in 12 cases.

Table 6: USG findings

Gestational sac	Present	Absent
	52	07
Gestational sac appearance (n=52)	Normal	Abnormal
	28(53.8%)	24(46.2%)
Yolk sac	Present	Absent
	34(65.4%)	18(34.6%)
Fetal pole	Present	Absent
	30(57.7%)	22(42.3%)
Cardiac activity	Present	Absent
	30(57.7%)	22(42.3%)

Gestational sac was present in 52 cases and not seen in 7 cases. The appearance of gestational sac was normal in 53.8% cases. Yolk sac was present in 65.4% cases. Fetal pole and cardiac activity was seen in 57.7% cases.

Discussion

Vaginal bleeding in early pregnancy requires prompt attention. A review of the menstrual history and prior ultrasonography can help establish gestational dating and determine whether the pregnancy location is known⁸. Bleeding equal to or heavier than a menstrual period and bleeding accompanied by pain are associated with an increased risk of early pregnancy loss⁹.

A total of 59 of pregnant women who presented vaginal bleeding during the first trimester to OPD were enrolled into the study. The bleeding occurs at all gestational ages between the implantation of the embryo in the uterus and 12 weeks of gestation, mostly between 4-8 weeks in 69.5% in our study and 50.8% in that of Boco¹⁰. Threatened abortion (47.5%) was the commonest cause of first trimester vaginal bleeding. This similar trend was observed in other studies¹¹⁻¹³. The clinical diagnosis of threatened abortion is presumed when bleeding occurs through closed cervical os before 20 weeks of gestation¹. 18.6% women were diagnosed with incomplete abortions. This rate is comparable to that of Yang and al, who found a rate of 23.1%¹². There

were 18.6% cases of stopped pregnancies (fetal demise). BelleyPriso and al found a rate of 20¹³. Bleeding from an ectopic pregnancy is the most dangerous cause of first trimester bleeding. It concerned 5.1% of the cases in our study. Belley and al found a rate of 5.2%¹³. Implantation of fertilized egg outside uterus is known as ectopic pregnancy. 11.9% were diagnosed as complete abortion¹⁴. This rate is similar to those of Coulibaly who found a rate of 9.1%¹⁵. Heavy bleeding occurred mainly in incomplete and complete abortions, while spotting and light bleeding occurred in threatened abortions, viable intra uterine pregnancy and missed abortion. Threatened abortions, incomplete abortion, missed abortion and ectopic pregnancy presented with bleeding, haemorrhage although increased risk of preeclampsia, fetal growth limits, premature pregnancy and lower abdominal pain^{4,5,16}. The diagnosis was confirmed on ultrasound^{17,18}.

Conclusion

Bleeding in first trimester of pregnancy is the common complaint with which the pregnant women presents to the health care worker. The commonest cause is the threatened abortion. Other causes are incomplete, complete and missed abortions. Bleeding in early pregnancy may be early presentation of a serious situation like ectopic pregnancy. Ultrasonography, especially the Trans Vaginal is very important in concluding the causes of bleeding. Pregnant women should be educated in the first visit to antenatal OPD itself for the symptoms like bleeding per vaginum and to seek help from health care worker as soon as possible.

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