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BLEEDING IN EARLY PREGNANCY;
VARIOUS WAYS OF PRESENTATION AND OUTCOME

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ABSTRACT… Objectives: (1) To determine various ways of presentation of bleeding in early pregnancy. (2) To classify the different causes of bleeding in early pregnancy. **Study Design:** A descriptive observational study. **Place and Duration of Study:** This study was done in Aziz Bhatti Hospital Gujarat attached with Nawaz Sharif Medical College (U.O.G) for a period of one year during 2014-15. **Methodology:** The patients who presented with the complaint of bleeding in early pregnancy before twentieth weeks of gestation were included in the study. The patients who presented after this gestational age and the patients with DUB or any other incidental cause were excluded. **Results:** Majority of the patients presented between the ages of 21 to 30 years, and the miscarriage was in the embryonic period. The other ways were pain and passage of vesicles (4%). Shoulder tip pain and fainting attacks were the other associated symptoms, twenty two percent presented with disappearance of pregnancy symptoms, only 4% patients presented with loss of fetal movements. The important predisposing factors were history of I.U.C.D, spontaneous miscarriage; E&C and 6% with history of recurrent miscarriages, diabetes, UTI. The most common were incomplete miscarriages. Second commonest were threatened. Two important diagnostic aids were U.S.G. (TVS) and vaginal examination to classify the causes of bleeding. **Conclusion:** Bleeding is the commonest complaint with which the pregnant population presents. The commonest cause is incomplete miscarriage followed by threatened miscarriage; ultrasonography is of utmost importance for diagnosis. The expectant management of complete miscarriage in selected cases when not bleeding heavily should be considered. The patients with inevitable abortion should be evacuated under aseptic conditions. The most serious causes e.g. ectopic pregnancy, molar pregnancy, missed miscarriage and incidental local causes should always be kept in mind.

Key words: Bleeding, early pregnancy, miscarriage, Molar, Ectopic.

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INTRODUCTION

More pregnancies are lost in the early weeks of pregnancy. The main causes of bleeding in early pregnancy are spontaneous miscarriage, induced abortion ectopic pregnancy, molar pregnancy and local causes. Spontaneous miscarriage is defined as expulsion of products of conception before twenty four weeks of gestation with no evidence of life.

In 1997 W.H.O. defined miscarriage as the expulsion or extraction from its mother of a fetus or an embryo weighting 500 grams or less. The incidence of spontaneous miscarriage is generally considered to be 15% of all the pregnancies.

Preclinical or subclinical miscarriages happen at or before five weeks of gestation.

Embryonic miscarriage occurs at a size of nine weeks gestational age or crown rump length of 75 mm without cardiac activity. Fetal miscarriage occurs at 10-20 weeks of gestation or CRL > 30 mm without cardiac activity.

Elise de La Rochebrochard and Patrick thommeau.[1] in their study found that the risk of miscarriage was higher if the women was aged > 35 years, but the risk was much greater for couples composed of a women aged > 35 years and a man aged > 40 years.

The various possible causes of spontaneous miscarriages are abnormal concept us, immunological, uterine abnormalities, endocrine factors, maternal diseases, infections which could be fetal as well as maternal, twins and trauma. Azim M and associates.[2] found that 5.3 % couples showed a chromosomal aberration in one of the partners, which were in the form of translocation, inversions, deletions and sex chromosomal abnormalities. The various types of miscarriages are threatened, inevitable, complete, incomplete, septic and induced abortions.

These pregnancies are high risk pregnancies, because they are predecessors of various complications later on in pregnancy. Bhattacharya S. etal[3] concluded that miscarriage group faced a high risk of preeclampsia, threatened miscarriage, and induced labor, instrumental delivery, preterm delivery, low birth weight, postpartum hemorrhage and preterm bleeding. Cosfe J and associates in their study on epidemiology of ectopic pregnancy in France[4] found that the incidence of ectopic pregnancy is 2% of the live births and 1.6% of all the reported pregnancies. The main identifiable risk factors were P.I.D, previous pelvic surgery and cigarette smoking.

Ectopic pregnancy could present with acute and sub-acute variety. Acute presentation is associated with rupture of ectopic pregnancy and massive intraperitoneal bleeding. Sub-acute variety presents with abdominal pain and vaginal bleeding.

Blood can be fresh or altered. There is also delayed menstruation. Molar pregnancy in the form of hydatidiform mole presents with vaginal bleeding mixed with molar tissue. A fluid of prune juice like consistency might present. Invasive mole or chorio carcinoma can present with vaginal bleeding, amenorrhea, abdominal pain and symptom resulting from uterine perforation.

A down trend was noted for gestational age of complete hydatidiform mole at diagnosis, which was also reflected in the reduced occurrence of vaginal bleeding, hyperemesis and pre eclampsia.[5]

First trimester bleeding without miscarriage is associated with pregnancy as well as subsequent maternal cardiovascular morbidity.

Women with pre-pregnancy cardio vascular disease had a 2.2 fold increased risk of first trimester bleeding without miscarriage and first trimester bleeding without miscarriage was associated with a 1.6 fold (1.4 – 1.8) increase in risk of subsequent maternal ischemic heart disease after adjusting for other adverse pregnancy outcomes.[6]

The risk factors for miscarriage are increasing maternal age > 35 years old, history of previous miscarriage, tobacco, alcohol, illicit drug use (e.g. cocaine), NSAID use, caffeine (high intake, low folate levels, maternal fever, febrile illness maternal obesity, maternal medical illness like diabetes.

Garcia CR associates in their study[7] found that although many risk factors were individually associated with miscarriage in preliminary analysis, finally only extremes in age (<25 and > 35) and the complaint of bleeding were associated with miscarriage. The complaint of pain, human chorionic gonadotropin greater than 500 (HCG < or = 500 1.4/ml compared with hcg. 501-2000 and concurrent cervical infection were negatively associated with miscarriage.

METHODOLOGY

This study is of a "Descriptive type" (observational), in which gravity of the situation is assessed in the selected population and the results will be compared with the national and international situation and recommendations are made regarding the management according to the local circumstances.

The study was done in Aziz Bhatti Hospital Gujarat.

All the patients who presented with the complaint of bleeding in early pregnancy during a period of

one year duration were included in the study.

The sampling technique is of non-probability and purposive type depending upon the clinical criterion of selection of patients.

The patients who presented in the Gynae and obstetric outpatients and emergency department with the complaint of vaginal bleeding at a certain period of amenorrhea, i-e, before 20 weeks of gestation were included in the study. The patients who presented after 20th weeks of gestation were not included in the study. The patients who presented with DUB or any other incidental cause will be excluded although they will come under discussion as a differential diagnosis of the bleeding in early pregnancy. A Performa was made which was filled for each patient according to the inclusion criterion.

RESULTS

Majority of the patients presented between 21 – 30 years, and majority of the patients had their miscarriage in the embryonic period. More patients presented with moderate to severe fresh bleeding with passage of clots and the pain followed bleeding which is usually with incomplete miscarriage, and the pain was intermittent, as mostly the patients are expelling the retained products of conception.

Only few patients presented with labor pains and passage of vesicles was in 4% of the patients.

The Ways of Presentation	No. of Patients	Percentage
Vomiting	20	10
Shoulder tip pain	12	6
Fainting attacks	16	8
Pyrexia	16	8
Vaginal discharge	32	16
Interference	32	16
Coitus	0	0
History of trauma	4	2
Disappearance of pregnancy symptoms	44	22
Loss of fetal movements	4	2

Table-I. The various ways of presentation of patients

About 6 – 8% of the patients presented with shoulder tip pain and fainting attacks which would be the case with ectopic pregnancy.

About 16% of the patients presented with vaginal discharge and interference. Interference is usually found in illegal induced, septic, missed and septic incomplete abortion.

Twenty two percent of the patients presented with disappearance of the symptoms, found in patients with missed, inevitable, incomplete or complete miscarriage. Only 4% of the patients presented with the loss of fetal movements which shows the early pregnancy loss in which the fetal movements are not perceptible.

Sixteen percent of the patients were with history of I.U.C.D, supporting the possible role of infection, 28% were with previous history of spontaneous miscarriage and 10% with induced, 32% were the patients in which E&C was done, 6% were with recurrent miscarriage.

The significant factors in the past history were diabetes, urinary tract infections. About 4% of the patients had babies with congenital malformation.

Abdominal Examination		
Physical Findings	**No. of Patients**	**Percentage**
Distension	4	2
Rebound tenderness	4	2
Localized tenderness	24	12
Generalized tenderness	16	8
Fluid thrill	-	-

Table-II. The physical findings of the patients

Pelvic Examination		
Physical Findings	**No. of Patients**	**Percentage**
Any local cause of bleeding on per speculum examination	1	-
Os open	108	54
Os close	60	30
The patients on which pelvic examination was not done	13	6.5
Tenderness on pelvic examination	16	8
Rocking / pain / sign	2	1

54% of the patients were with open os, suggestive of incomplete miscarriage and inevitable miscarriage.

The Os was closed in 30% of the patients. Os is usually closed in cases of threatened, missed, ectopic pregnancy and in other causes of bleeding.

Provisional Diagnosis	No. of Patients	Final outcome found in patients			Conservative Medical
		% Age	Surgical E&C Done	Surgical Laparotomy	
Spontaneous miscarriage	140	70	--	--	56%
Incomplete miscarriage	80	40	80	--	
Threatened miscarriage	60	30	4	--	
Induced Abortion	16	8	14	2	
Septic Abortion	8	4	6	2	
Ectopic Pregnancy	2	1	--	2	
Molar Pregnancy	8	4	8	--	
Missed miscarriage	16	8	16	--	
Others	12	6	--	--	

The outcome in patients with bleeding in early pregnancy

As shown in the table, the maximum number of patients was with incomplete miscarriage.

The second commonest variety was threatened miscarriage, which was diagnosed provisionally by clinical examination and by ultrasonography with intact intrauterine pregnancy and visible cardiac activity. It was found that the case in which FCA was found positive, 93.3% of the pregnancies continued in the form of viable pregnancies.

The use of TVS is helpful in the diagnosis of other life threatening conditions e. g, ectopic pregnancy and molar pregnancy, which may present with bleeding and with a certain period of amenorrhea.

Siplia P and Colleagues, in their study, found that bleeding during the second trimester indicates a poor pregnancy outcome and an increased risk of low birth weight, preterm births and congenital malformation.

DISCUSSION

Bleeding in early pregnancy is a very common problem in the pregnant population and is very alarming for the lady.

The incidence of miscarriage is generally considered to be about 15% of all the pregnancies (1963, Harlap etal 1980), however in a local study by Subhana Tayyab and Noor Jehan Samad (1996) in D.M.C. the incidence was found to be 22.96%. Majority of the study population belonged to the reproductive age group; and the miscarriages were more frequent between 9-12 weeks of gestational age.

Majority of the patients presented with moderate to severe fresh bleeding and passage of clots. Most of the times pain was intermittent and was followed by bleeding and the pain was minimum with incomplete miscarriage.

The commonest presentation was disappearance of pregnancy symptoms in about 22% followed by vaginal discharge. Interference was in ten percent in the form of induced abortion. The other ways of presentation were vomiting, pyrexia and fainting attacks.

Shoulder tip pain was in 6%, which is an important indicator of the differential diagnosis of ectopic pregnancy or induced abortion, indicating intraperitoneal bleed, history of trauma was in only 2% of the cases and the same was with loss of fetal movements, which showed less percentage of miscarriage in the second trimester.

In a study by Ream Hassan etal[9] in a community, they found that about 25% of the pregnant population, reported bleeding and in same the episodes were mere than once and 8% of the participants reported heavy bleeding. About 28% of the patients with spotting and light bleeding, also had pain, but heavy episodes 54% were with pain, the same kind of pattern, was also seen

in this study, which indicated the incomplete or complete miscarriages. The bleeding lasted for three days in majority of the patients and was between 5 -8 weeks. Twelve percent of women with bleeding and 13% of those without experienced miscarriage. Maternal characteristics associated with bleeding included fibroids and prior miscarriage.

In another interesting study[10], the authors compared, the accuracy of reported bleeding with the web based diary in a long linear model, and they concluded that the presence of vaginal bleeding, a common and potentially alarming symptom of early pregnancy may be assessed by interview with reasonable accuracy later in pregnancy. In his study by Andolsek KM[11], he found that, the classic presentation of ectopic pregnancy was uncommon so a high clinical suspicion of this problem must be maintained.

In their study on septic induced abortions[12] Anise fawad and associates found that out of all the gynecological cases 13.95% of the cases were spontaneous first trimester miscarriage and 4.7% cases of induced abortions. They were in the age range of 20-45 years with a mean age of 35. Majority were grand multipara and belonged to the lower socioeconomic group, not using any method of contraception, 38.4% of these patients presented with heavy vaginal bleeding because of the incomplete nature, 23% presented in shock due to excessive vaginal bleeding, 19.2% had uterine perforation, 5.7% developed septicemia due to uterine gangrene, 19.8% had pelvic abscessed after acute infections, and maternal mortality was 3.8%.

Regarding the physical findings, the abdominal findings were less remarkable, there was localized tenderness in 12% of the cases and generalized in 8% and there was distension and rebound tenderness in 2% of the cases each.

Os was open on 54% of the cases, indicating inevitable nature of the condition and in 30% of the cases the os was closed, thus requiring further investigation by son ology, and local cause of bleeding was found in only one patient.

Regarding the outcome in this study, majority of the patients presented with incomplete (40%) and threatened (30%) miscarriage. The ratio of the induced, septic and ectopic pregnancy was 8% 4% and 1% each. Four percent of to the patients had molar pregnancy and six patients required surgical laparotomy and more than 40% needed E&C, In 70% of the cases, this was spontaneous, as into previous study septic abortions were comparable, about four percent.

As found in this study, the incidence of gestational trophoblastic disease 1.16%, in a study by Farhat Khanum and Sadia Shamsher.[13] They found that the presentation was variable period of amenorrhea associated with vaginal bleeding (95.5) out of the total forty five patients, 38 had hydatiform mole and seven had chorio carcinoma.

Majority of the patients 68.5% were in the 21-39 age group the disease was more common among multigravida and grand multigravida (40-44%). One patient died, because of the complication due to chorio carcinoma.

Twin pregnancies complicated by vaginal bleeding, may have more complications later in pregnancy. MC Pherson JA etal[14] concluded that twin pregnancy complicated by vaginal bleeding in early pregnancy have an increased risk of abruption, P pron. Prom and preterm birth (34) weeks.

Regarding perinatal outcome of these pregnancies Siplia and associates in their study found that bleeding during the second trimester indicates a poor outcome and an increased risk of low birth weight, preterm births and congenital malformation.

CONCLUSION

Bleeding in early pregnancy is the commonest complaint with which the pregnant population presents to the health care workers. It causes a lot of morbidity and rarely mortality of the females. By this and various other studies, the commonest cause the threatened miscarriage, but the other

ones are incomplete, complete, and missed abortions. Bleeding in early pregnancy may herald a serious situation, as was found in this and other studies, like ectopic pregnancy, septic induced miscarriages, and perforation of the uterus and other viscera's, and thus the patients should be thoroughly examined, abdominally and pelvic examination. Trophoblastic disease is another sequel. Ultrasonography is of paramount importance in concluding the causes of bleeding and especially the Trans vaginal, and it should be routinely used in determination of the causes. The patients with inevitable miscarriage should be evacuated under aseptic conditions to prevent the further complications.

Bleeding in early pregnancy is a high risk pregnancy, which heralds the later complications, like, placenta previa, IUGR, miscarriage of twin and poor perinatal outcome, and thus such pregnancies should be individually taken care of to prevent the poor perinatal outcome.

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