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STUDY TO DETERMINE FETOMATERNAL OUTCOME IN PLACENTAL ABRUPTION COMPLICATED PREGNANCIES

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Abstract:

Objective: *The goal was to recognize associated risk factors with placental abruption and determine the effect of abruption on the fetal outcome.*

Study Design: *An Observational Study.*

Place and Duration: *In the Obstetric and Gynecology Department Unit II of Services Hospital Lahore for one year duration from March 2018 to March 2019.*

Methods: *A proforma was formed to collect data from 110 patients with early abruptio placentae reported during the study period. Fifty five percent had pregnancy-related hypertension, 30% had anemia, 10% had polyhydramnios, 15 percent had multiple pregnancy, and 6% percent smoked. Seventy percent of patients required an urgent invention. The frequency of abruptio placentae was 1.1 percent.*

Results: *Perinatal mortality was 500/1000. 35 percent of live children born with an insufficient Apgar score. Anemia was noted in Eight percent of the fetuses, neonatal jaundice in 12 percent and 15 percent had respiratory distress syndrome. Forty percent of patients were done by caesarean section. The caesarean hysterectomy was performed in 5 percent. Coagulopathy was present in 10 percent and postpartum hemorrhage in 25 percent. On the third day after birth, 35% of anemia was found. There were five deaths of mothers.*

Conclusion: *Early placental abruption was considered a high-risk condition. Most predisposing risk factors can be prevented by decreasing incidence, increase patient education and better obstetric care. Early placental abruption was found to be associated with high mortality and morbidity. Risk factors for placental abruption can be prevented.*

Key words: *premature placental abruption, detachment, fetus, motherhood, perinatal outcome, morbidity.*

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INTRODUCTION:

An Abruptio placentae (abruption of the placenta) is a condition with premature separation of the normally placed placenta after 24 weeks of pregnancy[1-2]. It is one of the most common reason of bleeding and causes 15 percent of perinatal mortality. Bleeding can be revealed or concealed. The concealed type is more dangerous[3]. Abruption can be classified as mild, moderate and severe depending on the degree of placental abruption and the amount of bleeding[4]. The mother's advanced age, high parity, smoking, hypertension and multiple pregnancy are common predisposing factors[5]. Other risk factors include sudden uterine decompression, direct trauma, uterine abnormalities, uterine fibroids and placental abnormalities[6]. Abruption is usually diagnosed based on clinical evaluation and ultrasound examination. The results were also confirmed by direct visualization of placental clots during delivery[7-8].

The aim of our study was to reduce the morbidity and mortality of mothers and women in the perinatal period due to placental abruption. It has been estimated that the results of this study will help us understand this serious obstetric problem and allow us to develop better management plans. Knowledge of specific risk factors will allow us to eliminate or at least control them.

OBJECTIVES AND OBJECTIVES

1. Identify avoidable risk factors associated with early miscarriage that will help us reduce mortality and morbidity.
2. Assess maternal mortality and morbidity associated with early miscarriage.
3. Assess perinatal disease and mortality due to early placental abruption

MATERIAL AND METHODS:

This observational study was held in the Obstetrics and Gynecology Department Unit II of Services Hospital Lahore for one year duration from March 2018 to March 2019. In our study there were 110 patients with premature placental abruption. Patients with confirmed placental abruption were included; because other patients with antenatal haemorrhage were excluded from the study. The incision was classified as mild, moderate and severe depending on the degree of placental abruption and the amount of bleeding.

The patient's age, gestational age, parity, complaints and obstetric history were recorded. The factors to be considered were hypertension, multiple pregnancy, polyhydramnios, smoking, anemia, sudden uterine decompression, direct trauma, uterine fibroids, and uterine and placental abnormalities. Each patient with abruptio placenta was asked two direct questions: Do you know that bleeding during pregnancy has serious consequences? Do you know the benefits of early antenatal care? The purpose of these questions was to enable the public to understand the consequences of antepartum hemorrhage and to understand early antenatal booking as the most important preventive measure. Rh factor, blood group, hemoglobin levels, kidney and liver function tests, obstetric ultrasound and coagulation profile were considered compulsory for all patients. Intrauterine, neonatal deaths and poor apgar scores were recorded to assess fetal outcome. Important variables were newborn problems such as jaundice, fetal anemia, breathing problems and daily care. Maternal morbidity was assessed based on urgent delivery or the need for intervention by caesarean section. Other variables are anemia and blood transfusion, coagulopathy, renal arrest and postpartum hemorrhage. Imperial hysterectomy was considered a serious morbidity. Deaths of mothers were observed.

A complete form was designed to record mother and child profile, clinical data, test results, management data and postnatal observation. Risk predisposing factors were noted in each patient. The fetal score was recorded in terms of morbidity and mortality. The results were compiled from these data and analyzed by SPSS 16. Because there is no group comparison between groups, no significance test can be used.

RESULTS:

A total 110 patients were selected for study. The mother's age was between 16 and 42 years old. Gravidity ranged from primigravida to gravida 10. Fifty percent of patients were between 30 and 40 years old. Fifty percent of patients had gravida five to seven years. Sixty-three percent of patients had a pregnancy that lasted more than 37 weeks, and only fourteen percent were less than 32 weeks at the time of admission.

Only 16% of patients were aware of the severity of bleeding and antenatal care. Only 10 percent of patients knew that early antenatal booking is an important preventive measure for a good overall obstetric outcome.

The most common complaints were vaginal bleeding and abdominal pain. 13 percent of patients have had previous abruptio placentae in previous pregnancies. 40 percent of patients were in established labour and 30 percent were in bleeding shock at admission. Thirty percent of patients had reserved antenatal care, and

seventy percent were not. Thirty percent were conservatively managed and seventy percent required urgent execution. The frequency of early discharge was 1.1 percent. As for preventative factors, fifty five percent had pregnancy-related hypertension, thirty percent had anemia, 8 percent had polyhydramnios, 11 percent had multiple pregnancy and 6 percent smoked. Severe abruption was noted in 25%, moderate abruption in 45% and mild abruption in 30 percent. It was reported that 60% had bleeding, 10% was obstructed, and 30% had bleeding. Perinatal mortality was 500/1000. 40 percent of live children born with an insufficient Apgar score. Anemia was noted in thirty percent of the fetuses, neonatal jaundice in 10 percent and 15 percent had respiratory distress syndrome. Forty percent of patients were done by caesarean section. The caesarean hysterectomy was performed in 7 percent. Coagulopathy was present in 13 percent and postpartum hemorrhage in 27 percent. On the third day after birth, 36% of anemia was found. There were five deaths of mothers.

Predisposing factors associated with placental abruption

Predisposing factors	**frequency of patients**	**%age**
Smoking	6	6
Poly hydramnios	8	7
Multiple pregnancy	11	11
Anaemia	30	30
Hypertension	55	55
Total	**110**	**110**

Standard deviation = 1.15378

Neonatal Morbidity

Morbidity	**Frequency of neonates**	**%age**
Poor Apgar score	40	40
Oxygen dependant for more than 48 hours	20	20
Need for ventilator	15	15
Respiratory problems	15	15
jaundice	10	10
anaemia	10	8
Total	110	100

Standard deviation = 1.65789

Fetal Outcome

Total no of babies delivered	**110**
No of early neonatal deaths	16
No of dead born babies	40
No of babies delivered alive	54

Perinatal mortality rate

	Alive babies	**IUDs**	**Early neonatal deaths**	**Total**
Percentage	55%	38%	15%	100%
Frequency	55	38	17	110

Perinatal loss is 50%. Standard deviation = 0.72995

Maternal Morbidity

Morbidity	Frequency of mothers	%age
Acute renal failure	3	3
Caesarean hysterectomy	7	7
Coagulation disorders	13	13
Transfusion reactions	12	12
Puerperal pyrexia	12	12
Postpartum haemorrhage	27	27
Postpartum anaemia (in addition to intra operative transfusions)	36	36
Total	110	110

Standard deviation = 1.72199

Maternal morbidity was also high. Forty percent of patients were born by caesarean section, and fetal suffering was the most common indication. The imperial hysterectomy was performed in five percent. Ten percent had coagulopathy and twenty-five percent had postpartum hemorrhage. Thirty-five percent had anemia on the third day after birth. There were four serious deaths, one due to renal failure and the other due to disseminated intravascular coagulation.

DISCUSSION:

According to international literature in our study, the frequency of abruption ranges between 1-2% and 1.1%. Although this is in line with international literature, it is necessary to soften it. Fifty five percent of patients with early placental miscarriages were in the 30-40 age range, and parity was also high in these patients[9]. (Fifty percent of patients took five to seven pictures.) As we can see in our study, the impact of age and parity is consistent with national and international literature. This means that an effective patient education program, as well as a good family planning service, can help reduce the separation rate in our community[10]. 15 percent of patients have had previous abruption in previous pregnancies. This means that, according to our research, the relapse rate is 15%. This means that early placental abruption is a high-risk condition with a high relapse rate[11]. Fifty percent had pregnancy-related hypertension, twenty-eight percent had anemia, 8 percent had polyhydramnios, 12 percent had multiple pregnancy, and 7 percent smoked[13]. All predefined risk factors can be prevented or at least controlled by better prenatal care. Patients should quit smoking and correct anemia when they are not pregnant or before the second trimester. Prenatal reserve may help better manage hypertension, polyhydramnios and multiple pregnancies. In this way, it can be minimized if a serious obstetric condition is not eliminated. Or maybe you can still prevent it?

Perinatal mortality was 500/1000. (35 intrauterine deaths and 15 early neonatal deaths per 100 cases). The most common neonatal diseases are neonatal jaundice, anemia, and respiratory distress syndrome. Overall, thirty percent of live babies were born with a low Apgar score. This shows a very low fetal result according to the literature[14]. Maternal morbidity was also high. Forty percent of patients were done by caesarean section. The imperial hysterectomy was performed in five percent. Ten percent had coagulopathy and twenty-five percent had postpartum hemorrhage. Thirty-five percent had anemia on the third day after birth. There were five deaths of mothers. The question is how we can reduce this high morbidity and mortality associated with placental deterioration. This can be reduced by a public awareness program with better obstetric care. To reduce the number of families using family planning methods, patients should be trained and completed up to the age of thirty[15]. Patients should be trained in early prenatal reserve. In this way, the occurrence of separation can be reduced. In early booking, risk factors can be treated and controlled. We will need to develop and integrate obstetric care to prevent delays in admission to tertiary hospitals. Blood transfusion services should be developed to save mothers' lives.

There is an urgent need to improve and extend the care of newborns. If we want to achieve results at national level, this should be done at community level.

CONCLUSION:

It was found that early placental abruption was associated with high maternal and child morbidity and mortality. Most associated risk factors can be prevented. Late and lack of prenatal care, inadequate education of patients and delays in admission to higher education have significantly contributed to poor fetal and maternal results. We must focus on these issues at national level. This will help reduce the incidence of early placental rupture and associated morbidity and mortality.

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