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PLACENTA PREVIA;

MATERNAL AND FETAL OUTCOMES IN MAJOR DEGREE OF PLACENTA PREVIA.

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ABSTRACT… Objectives: To determine the maternal and fetal outcomes in patients presented with major degree of placenta previa at tertiary care Hospital. **Study Design:** Descriptive cases series study. **Setting:** Department of Gynaecology and Obstetrics of Liaquat University Hospital Hyderabad. **Period:** One year from March 2015 to February 2016. **Subject and Methods:** All patients with major degrees of placenta previa were included in study. Following delivery the examination of neonate was carried out thoroughly including congenital abnormalities, weight of baby and Apgar score. Babies and mothers were examined within postoperative wards till stitches removal and systematically examined for any postoperative complication. All the data was entered in the proforma. **Results:** Total 50 patients with major degrees of placenta previa were selected. Majority of the women 40% belonged to the age group of 30-35 years. Most of the women 92.0%, were symptomatic and presented with painless vaginal bleeding. Elective cesarean section was performed among 20% patients while 80% patients underwent emergency cesarean section. 70% patients delivered preterm and 30% delivered at term. 3(6%) fetals were still births and 1(2.0%) presented macerated still birth. 16% fetuses developed respiratory distress syndrome, 6% had intrauterine growth restriction and only one had congenital abnormality (spina bifida). Neonatal weight less than 2500-grams was among 90%. Perinatal mortality was 6(12.0%), and according to maternal outcome, mortality rate was low i.e. just 1 subjects passed away. **Conclusion:** Major degree of placenta previa is a significant contributor of obstetric hemorrhage in 02nd and 03rd trimester of pregnancy as well as it adversely correlates with feto-maternal outcomes. Instant moving the case of obstetric hemorrhage to hospitals, precise diagnosis, sufficient transfusion provision, intervention without delay can reduce the fetomaternal morbidity and mortality.

Key words: Placenta Previa, Fetal outcome, Maternal outcome.

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INTRODUCTION

Placenta previa is demarcated as placenta implanted partly or entirely within lower uterine segments. Complication of Placenta previa occurs around 1 in 200 live births. The placenta previa's reported overl all prevalence was1.24% in china[1] and prevalence of placenta praevia was 5.2 per 1000 pregnancies in UK.[2] It can possibly be categorized as minor & major degrees placenta previa.[2] Placenta previa is a frequent obstetrical challenge correlated with substantial fetal and maternal mortality and morbidity. Antepartum hemorrhage (APH) through placenta previa is a life-threatening, most acute complication because of risks for substantial hemorrhage to the both fetus and mother. In Pakistan there is inadequate data for APH prevalence among pregnancies but somen studies have found it to be in 6.7% of deliveries.[3] Placenta previa is a substantial problem with serious outcomes involving low score of APGAR, rate of perinatal death as elevated as 12.6% to 21.3%, prematurity, and congenital abnormalities1.[4] Prevalence of respiratory distress syndrome in neonates delivered at gestational age of 30 to 35 weeks by C-section within mothers who have placenta previa is considerably greater as contrasted to females who do not have placenta previa.[5] In underdeveloped nations nowadays, widespread pre-existing anemia, transport difficulties and limited facilities of medical remain accountable for loss of several maternal lives.[6,7] The source

of placenta previa is not fully-understood, certain risk factors involve male fetal sex, multiparity, advanced age of mother, cocaine use and cigarette smoking in the course of pregnancy, prior history of placenta previa, uterine surgeries, prior abortions, and a history of C-section.[8] Placenta praevia contributes to estimated 35% of Antepartum haemorrhage and its assiation with severe maternal morbidity and maternal mortality is obout 30% in the Asia.[9] As a maternal morbidity factor, placenta previa continues to be a substantial source of hospitalizations and C-sections. Fetal mortality is considerably more frequent contrasted to maternal mortality. Around 15% rate of perinatal mortality can be because of antepartum hemorrhage (APH) with life-threatening prematurity. Perinatal mortality risk among women having placental previa is projected to be 4% to 8% but, when suplimrnted by prematurity, the mortality rate may elevate to 50%.[10] The rates of mortality and morbidity have been diminished remarkably in West. With much knowledge and technology transfer the similar effect can be noted on my part as well. This study was intended to assess fetomaternal outcomes within cases with major degreesplacentasprevia. The significance of this study is attributable to the reality that yet placenta previa is a vital factor of fetal and maternal morbidity and mortality in our frame. The likelihood of the study because of cost-effectiveness was one more significant factor.

MATERIALS AND METHOD

This descriptive cases series study was carried out within one year of duration. This study comprised fifty cases and study was carried out at department of Gynaecology and Obs. of LUH Hyderabad, Sindh. Patients with abruptio placenta and type 1 and 2 of placenta previa were not included in the study. Patients were collected from emergency and some of the subjects were admitted via outpatients department (OPD). Complete history of the subjects was documented together with age, last menstrual cycle, parity, estimated date for delivery and event of bleeding as well as blood transfusion history within current pregnancy. For previous pregnancy, data was recorded including bleeding episodes extent, mode of delivery, perinatal outcome, blood transfusion extent and abortion history after curettage and dilatation. After obtaining detailed history informed consent was taken. Abdominal examination was done for lie of fetus, fundus height, fetal cardiac sounds, fetus presenting part, expected fetal weight, absence/ presence of tangible uterine contractions within laboring female.

Patients were generally examined including routine urine examination, blood group, complete blood picture, ultrasonography, blood sugar, routine urine examination, fetal cardiography, Doppler study and biophysical profile. Patients with premature gestation and little vaginal bleeding were admitted within the ward for observation and rest. Two 12-mg doses of betamethasone Injection were given intramuscular with 12 hours of gap, to improve the maturity of fetal lung. Following delivery the examination of neonate was carried out thoroughly including congenital abnormalities, weight of baby and Apgar score. Babies who had severe birth asphaxia were moved to nursery. Babies and mothers were examined within postoperative wards till stitches removal and systematically examined for any postoperative complications, which include wound infection, anemia and potpartum hemorrhage. Patients were generally released from wards on 5th postoperative day following stitches removal. All the data regarding foeto-maternal outcome was recorded in the proforma. Data was analyzed by SPSS version 20.

RESULTS

This study included total 50 subjects with placenta previa. Maternal age was noted as 31 to 35 years within 20 (40%) cases, 26 to 30 years within 13 (26%) subjects, 18 to 25 years within 7 (14%) subjects and >35 years within 10 (20%) cases. Most of cases exhibited vaginal bleeding. Out of 50 patients, just 13 (26%) subjects were booked whereas 37 (74%) subject remained un-booked. According to the parity, para 0-1 were 8 (16%), para 2-3 were 4 (8%), para 4-5 were 21 (42%) and para ≥5 were found 17 (34%). Placenta previa diagnosis was achieved at a range of gestational ages. In 6 (12%) cases 24 to 28 weeks of gestation was diagnosed as gestational age, in 9 (18%)

cases it was 29-32 weeks, in 20 (40%) cases 33-36 weeks and ≥37 weeks within 15 (30%) cases. (Table-I)

Most of the women 92.0%, were symptomatic and presented with painless vaginal bleeding. Emergency C-section was carried out among 40 (80%) subjects and elective C-section was conducted in 10 (20%) cases. There were 35 (70%) females with preterm delivery however 150(030%) delivered at term. (Figure-1).

It was noted that 3(6%) females presented with fetal still births and 1(2.0%) females presented macerated still birth. Among 46 babies with live birth 26(52%) needed resuscitation. 16(32%) babies were moved to NICU out of which 10 (20%) babies recovered and retrieved to the wards however 6(12%) died there. Respiratory distress syndrome was noted among 8(16%) cases, 7(14%) were noted with jaundice, 4(8%) cases had anemia, 3 (6%) had IUGR and 1 (2%) patient presented congenital abnormality (spina bifida). Our study exhibited very low mortality rate, i.e. just 1 (2%) patient passed away because of excessive obstetrical bleeding (Table-II).

Baseline Characteristics	Frequency	Percentage
Age groups		
18 – 25 years	07	14.0%
26 – 30 years	13	26.0%
31 – 35 years	20	40.0%
36 – 45 years	10	20.0%
Total	50	100.0%
Booking Status		
Un-booked	37	74.0%
Booked	13	26.0%
Total	50	100.0%
Parity		
Para 0 – 1	08	16.0%
Para 2 – 3	04	8.0%
Para 4 – 5	21	42.0%
Para 5 and above	17	34.0%
Total	50	100%
Gestational Age		
24 – 28 weeks	06	12.0%
29 – 32 weeks	09	18.0%
33 – 36 weeks	20	40.0%
37 and above	15	30.0%
Total	50	100%

Table-I. Baseline characteristics of patients (n=50) Mean age = 31.26. Mean g.age = 33.74

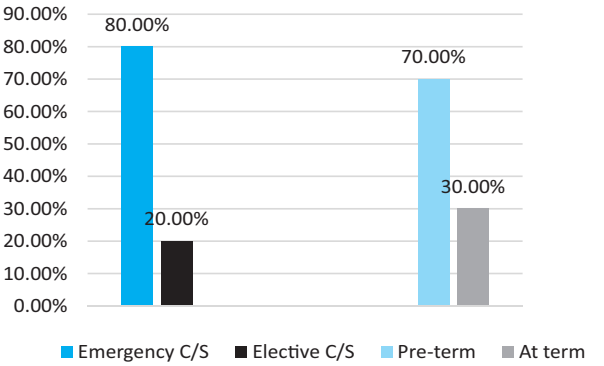

Figure-1. Cases categorization according to type of sasearean section andterm status n=50

Variables	Frequency	Percentage
Neonatal Outcome		
Still births	03	06.0
Macerated still birth	01	02.0
Shifted to Neonatal ICU	16	32.0
Respiratory distress syndrome	08	16.0
Jaundice	07	14.0
Anemia	02	04.0
IUGR	03	06.0
Congenital abnormalities	01	02.0
Expired	06	12.0
Normal	15	30.0
Maternal Outcome		
Safely returned home	49	98.0
Expired	01	02.0

Table-II. Fetal and maternal outcome n=50.

DISCUSSION

Placenta previa is a frequent obstetrical challenge correlated with substantial fetal and maternal mortality and morbidity. It is commonly correlated with Antepartum hemorrhage and is a triggering factor of preterm labor. The etiology of implantation of low placenta is debatable however some correlations have been found for instance previous C-sections, maternal age, multiparity and multiple pregnancy. This study documented that APH because of placenta previa major degree was further frequent within mothers with no earlier antenatal visits. There were 8% of asymptomatic cases, which is similar to Memon S et al[11] as antepartum haemorrhage due to placenta praevia was more common and most frequent

among those women who were un-booked and without antenatal visits. Uzma S et al[12] also found similar findings as 54% antepartum haemorrhage due to placenta praevia. Antepartum hemorrhage because of placenta previa was observed further frequent within mothers without any antenatal visit contrasted to those with effective antenatal care as well as had placenta previa's prenatal diagnosis prior to its manifestation. Parity, as a correlated contributing factor of placenta previa, is established in our study where most of cases were mulitparous. Similalrly Kruszyński G et al[13] reported that placenta praevia was most frequent among multiparous women.[13] Most cases with placenta previa major degree were of old age and multiparous. These findings are in accordance with studies conducted by El- Davood S et al.[14] Halimi S et al[15] also found significant assosaition between placenta previa and increased parity as 89 were multipara, 99 were grand multipara out of total 226.

For studied group, maternal age ranged between 18 to 45 years. Most cases specifically 20 (40%) were aged between 31-35 years. These findings are in line with the findings of Kruszyński G et al.[13] Bashir A et al[16] also found most common age groups of 26–30 Year among 27 women with placenta previa out of 50. Halimi S et al[15] also found comparable findings as commonest age group of 31-40 years among 55.75% of women with placenta previa. The mean gestational age for neonates delivered in our study was-33.74 $\pm$3.4 weeks which is consistent with findings of Kruszyński G et al[13] as mean gestation age of women with placenta previa was 34.9 $\pm$3.6 weeks.

In this study according to maternal olutcome just 1 (2%) patient passed away because of excessive obstetrical bleeding. Comparable findings were reported by Das GC et al[9] as maternal mortality death occurre only among 2 women, one cases due to severely developed jaundice and DIC, while other died due to haemorrhagic shock. Siddiqui SA et al[3] found maternal mortality only 0.69% among women with placenta previa. In this series preterm neonates of the mothers with placenta previa were noted with a greater frequency of 16% RDS, 6% IUGR, 8% anemia, 14% jaundice and 2% congenital anomalies contrasted to a study of Khashoggi T who documented 8.3% IUGR and 18.7% respiratory distress syndrome.[16] Raja Rajeshwari et al[17] stated that prematurity found in 63.6% cases and respiratory distress syndrome about 4.58%. Comparable findings were found in the study of Kruszyński G et al.[13]

In our study perinatal mortality was 12% contrasted to the study of Crane JM et al, where it is 2.30%.[18] This could be because of the reality that our findings were based entirely on placenta previa with major degree, exhibited that mortality of neonates is greater in placenta previa with major degree. Sheiner reported that perinatal mortality and congenital malformations were 2.6 times more usual among cases presented with placenta previa.[19] Raja Rajeshwari et al[17] reported 64% neonates were presented with low birth weight and 16.41% neonatal death was occurred. In other studoies also found elevated perinatal mortality.[20]

CONCLUSION

Major degree of placenta previa is a significant contributor of obstetric hemorrhage in Second and Third trimester of pregnancy as well as it adversely correlates with feto-maternal outcomes. Instant moving the case of obstetric hemorrhage to hospitals, precise diagnosis, sufficient transfusion provision, intervention without delay, attempts to achieve maximum gestational age and delivery via C-section in the context of expert consultants are the basis of the management protocols.

Implementing health education and family planning programs needed to predict the risk factors correlated to placenta previa. Fully furnished blood blanks are required at hospitals to prevent any death because of absence of blood and blood products, particularly for unattended patient and rare blood groups. Fully furnished NICU should be developed to overcome the preterm birth complications. Up-to-date equipment and procedures such as transvaginal ultrasonography, color Doppler and MRI are necessary to take right steps timely.

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