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MAJOR PLACENTA PRAEVIA – A TRUE OBSTETRIC EMERGENCY

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ABSTRACT

OBJECTIVES: *To evaluate the frequency, associated risk factors and maternal out come in women presenting with major degree of placenta praevia.*
STUDY DESIGN : *Descriptive case series study.*
PLACE AND DURATION OF STUDY : *Department of Gynaecology and Obstetrics unit 1 Sheikh Zayed Women Hospital & Chandka Medical College Larkana from 1st January 2008 to 31 Dec 2008.*
PATIENTS AND METHOD : *Total 50 patients were included in this study with major degree of placenta praevia (type 111, IV) diagnosed on ultrasound presented with painless vaginal bleeding after 28 wks of pregnancy. The patient having antepartum haemorrhage due to minor placenta praevia, abruptio placenta and incidental causes were excluded. There out come variable were entered in proforma and results were evaluated.*
RESULTS : *Total numbers of deliveries during the study period were two thousand and fifty. Among them ninety two cases presented with Antepartum hemorrhage. Seventy one had placenta previa giving the frequency of 3.46%. 50 had major degree of placenta previa (2.43%) while 21 (1.02%) had minor degree of placenta previa. Majority of patients were between 20-35 years of age and were grand multipara. Six patients had previous history of placenta praevia, twelve had history of Caesarian section. 15 patients presented with life threatening hoemoharge in state of shock. 46 patients delivered by cesarean section, while 4 patients had obstetrical hysterectomy. 10 patients had postpartum haemorrhage, 1 patient developed DIC, and 15 had puerperal sepsis. 9 had UTI, 4 had wound infection, 2 developed renal failure. None of the patient expired in this study.*
CONCLUSION : *Placenta previa is associated with high maternal morbidity because of lack of diagnoses and blood transfusion facilities in rural areas Frequency of placenta praevia was 3.46% and found to be more common in young age and in grand multipara. Previous scar in uterus was a major risk factor.*

KEY WORDS : Major placenta praevia, frequency, risk factors, maternal morbidity.

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INTRODUCTION

Placenta previa is a serious complication of pregnancy and is defined as a placenta that is implanted within the lower uterine segment [1.]It occurs in 2.8/1000 singleton pregnancies and 3.9/1000 twin pregnancies [2]. It is associated with high parity, increasing maternal age, uterine abnormalities, smoking, previous (recurrence rate 4-8%), cesarean section, termination of pregnancy and intrauterine surgery [3.] World wide over 600,000 women die annually in pregnancy and child birth, and globally maternal mortality ratio is estimated at 400/ 100, 000 live births [4.] Massive obstetric hemorrhage is a major cause of maternal death and morbidity and placenta praevia represents a true obstetric emergency that is still significantly associated with increased perinatal and maternal morbidity and mortality in developing countries [5.] It is also a significant contributor to severe PPH especially when associated with concomitant development of placenta accreta [6]. Placenta praevia is a major antenatally identifiable risk factor for obstetric haemohage particularly in women with a previous uterine scar[7]. Because of the speed with which obstetric hemorrhage at delivery can become life threatening the caesarean hysterectomy, internal iliac artery ligation or embolization may be necessary. These procedures require not only the advance surgical or radiological skills but also the ability and experience to decide quickly when these producers are necessary to save the maternal life and serious maternal morbidities that may arise from severe blood loss including hypovolumic shock, DIC, renal failure, liver failure and adult respiratory distress [8]. The rational of our study was to evaluate the

frequency, risk factors and maternal out come in women presenting with major degree of plancenta praevia at sheikh zayed hospital for women and CMC Larkana.

PATIENTS AND METHODS

This study was conducted in the department of obstetrics and gynaecology unit 1 sheikh zayed hospital for women and CMC Larkana from 1st Jan 2008 to 31st Dec 2008. 50 patients with major degree of placenta praevia (type iii, IV) diagnosed on ultrasound presented with painless vaginal bleeding after 28 wks of pregnancy were included in this study. The patients having APH due to minor placenta previa, Abruptio placenta, incidental causes were excluded. History was obtained from the patients themselves and also from their relatives. Clinical presentation of painless bleeding and associated symptoms were recorded. Any known risk factor like multiparity, multiple pregnancy, advance maternal age, previous cesarean section was recorded. Duration of pregnancy, malpresentations, fetal status (Alive, distress or dead), maternal complications (hypovolumic shock, PPH, DIC, ARF) were recorded. All such patients were advised for hospital delivery close monitoring of natal and postnatal period was recorded. After initial resuscitation diagnosis was confirmed by ultrasound. More serious patients were taken to operation theater for examination under anesthesia and proceed. Mode of delivery recorded in detail with any complications on a proforma designed for the study,. Data collected and processed by SPSS version 10.

RESULTS

Total number of deliveries during the study period were two thousands and fifty. Among them ninety two cases presented with Antepartum hemorrhage, Seventy one had placenta previa given the frequency of 3.46%. 50 cases (2.43%) were the major degree of placenta praevia while 21 (1.02%) were type 1 and ii.Abruptio placenta was found in 21 cases (1.02%) (Table1). Advanced maternal age is associated with progressively elevated risk of placenta praevia. However the maximum patients 36 cases (72%) were between the 20 - 35 years while (24%) were less than 20 years. Majority of patients 47 cases (94%) were belongs to low socio economic status. Relation to parity showed that a high proportion of patients with placenta praevia were grand multipara 21 patients (42%). Multiparious were (5.10%). Twin pregnancy was seen in 4 cases (8%), recurrent placenta praevia was detected at repeat cesarean section in 6 cases (12%). Review of the past obstetrical / Gynaecological procedure related that dilation and curettage (un related to pregnancy) had been performed in 10 cases, previous abortion had occurred in 16 cases. History of LSCS was found in 12 cases (24%). Analysis of the above results showed that majority of patient had at least one or more gynaecological procedure performed before the present pregnancy (table 11). Among 50 patients 4 were symptomatic they were diagnosed as a case of major placenta praevia on ultrasound while 46 patients presented with bleeding per/vagina. 11 (22%) patients had mild bleeding, 20 (40%) with moderate bleeding and 15 cases (30%) presented in emergency in state of shock they were resuscitated and emergency LSCS was done.

TABLE I

FREQUENCY OF PLACENTA PRAEVIA

- Total Deliveries = 2050
- APH = 92

Type of APH	No: of Cases	%
Placenta Previa	71	3.46%
Major Previa	50	2.43%
Minor Previa	21	1.02%
Abruptio Placenta	21	1.02%

TABLE II
RISK FACTORS

Risk Factors	No: of cases	%
Age		
• 15- 20 years	12	24
• 20-35 years	36	72
• > 35 years	2	4
Parity		
• Nulliparous	5	10
• 1 – 3	16	32
• 3 -5	8	16
• > 5	21	42
S.E Status.		
• Poor Class	47	94
• Middle Class	3	6
Previous H/O Praevia	6	12
Previous H/O c/section	12	24
Previous Abortion		
• With D&E	10	20
• Without D&E	6	12
Multiple Pregnancy	4	8

TABLE III
MATERNAL OUT COME

Maternal Morbidity	No: of Cases	%
PPH	10	20
Puerperal sepsis	15	30
UTI	9	18
Wound infection	4	8
ARF	2	4
DIC	1	2
Caesarean hysterectomy	4	8
Blood transfusion	46	92

Mode of delivery was analyzed 46 (92%) patients delivered by LSCS, 4 cases (8%) by elective caesarean section because they were presented

Asymptomatic, while 42 cases (84%) were delivered by emergency caesarean section, they were grand multipara had previous 2 to 3 LSCS. 4 patients (8%) had caesarian hysterectomy due to morbid adherent placenta. Fetal malpresentation at the time of delivery was common in this study as well. Breech presentation in 18 cases, transverse lie in 6 cases and oblique lie in 3 cases.

Maternal morbidity was commonly seen in older age group. 10 patients (20%) developed postpartum haemorrhage, 4 cases (8%) were ended up in obstetrical hysterectomy due to morbid adherent placenta praevia, they were grand multipara had history of previous caesarean section, 15 patients (30%) patients developed puerperal sepsis, 2% developed DIC, 4% developed acute renal failure, wound infection in (8%). Urinary tract infection was observed in 18% and none of women expired in present study. (Table 111).

DISCUSSION

Antepartum haemorrhage is an important obstetric entity. The associated high maternal and fetal morbidity and mortality is very challenging for the obstetrician. The incidence of placenta previa in our study is 3.46% which is nearly similar to that found by farhat Nasreen[1], showed over all incidence of 3.5%. The incidence in our study is much higher than the reported incidence of 1:200 (0.5%). The reason being that our hospital is tertiary hospital and there is none awareness of booking culture in lower and middle class population of northern sindh, so we mostly receive un booked and mismanaged cases. This study also shows incidence increasing with increasing maternal age, showing maximum incidence between 20-35 years so our study is identical with the findings of lyasuS, showing higher incidence > or =35 years than women < 20 years old women[9]. William MA found women who were 30 years old or older had double chance of having it.[10] Multiparty also prophesized placenta praevia, which is well demonstrated in this study also, where majority of women (90% cases) were multiparous, out of this 58% women have 3-5 or >5 pregnancies. This was also demonstrate in a study of Ananth and his colleagues[11], and Naye 1980[12]. According to Abu-Heija AT[13]. It is higher among women gravida > 4 para > 3, similar results have been seen by Hossain G[14]. This is because of lack of readily available contraception. Lot of studies showed the relationship of the placenta praevia with previous caesarean deliveries[15]. Taylors VM, concluded that women had the history of caesarean delivery are 50% more likely to have it[16]. Handrick MS, found that risk increases with increasing numbers of caesareans section[17]. Herkowitz R, found that in women with praevia, 21.1% had history of previous caesarean section but its incidence is not enhance by increasing number of caesarean section[18]. The same results demonstrated in present study in which 20% of patients had history of caesarean section. 40% had previous 1 caesarean section and 6% had previous 2 scar. A low incidence of placenta praevia in a previous caesarean section in our study could be due to fact that, only major degrees of placenta praevia were analyzed.

Abortion is also predisposes a woman to placenta previa. Ananth cv identify a strong association between previous spontaneous or induced abortion and subsequent development of praevia [19], that is also noted in other studies[17], [20]. According to Johnson and mueller the risk may be increased in a dose response fashion, of multiple sharp curettage[21], however in this study 16 women (32 %) had history of abortion, 10 out of 16 patients had history of at least one evacuation and curettage for incomplete abortion. In our set up sharp curettage is mostly used instead of suction evacuation, thus accounts for higher incidence of placenta praevia .Recurrence of placenta praevia in our study is 12% while schilling[22] found 42.5% and 30.9% in Ahmed K[21] due to increase no of cesarean section. This low incidence of recurrence in our study is because of analyzing only major degree of placenta praevia.Caesarean section is the method of choice for delivery in present study. Use of aggressive management resulted a significant maternal morbidity[11]. Deborah WA and his colleagues mentioned that for selected patients, out patient management of symptomatic placenta praevia appears to be an acceptable alternative to traditional conservative expected in patients management[23]. In this study all patients were managed in hospital, all patients had caesarean, out of this 92% cases treated by emergency caesarean, on the other hand 4 were treated as elective cases.

Tocolytic treatment was not offer to any of the patients, because most of them came in active bleeding which was successful in few studies[24]. Caesarean hysterectomy was done in 4 cases (8%) due to placenta accrete. All 4 patients had previous 2 caesarean, this association is strongly evident in other studies as well[15]. All the hysterectomies were subtotal and done by RMOs and senior registrars, this indicate the safe procedure and less time consuming as in total hysterectomies. Prolong hospital stay is also an indicator of maternal morbidity.35 women were hospitalized for 5-7 days or more than 7 days. It was mostly seen in unbooked cases, as seen in another study showing that early identification of these cases is important in further management and decreasing morbidity and mortality in women with placenta previa. No mortality was seen in present study the over all morality rate was reduced to 0.1% in developed countries[25] which reflects a good antenatal services. Maternal mortality rate in Pakistan is 340/ 100,000 live births, which is much higher than developed countries this could be because most of population is down trodden, illiterate, living below poverty line and unaware of health education such class still being handled by untrained Dais[26], which is observed in this study as well.

CONCLUSION

Placenta previa is associated with high maternal morbidity because of lack of diagnoses and blood transfusion facilities in rural areas Frequency of placenta praevia was 3.46% and found to be more common in young age and in grand multipara. Previous scar in uterus was a major risk factor.

SUGGESTIONS & RECOMMENDATIONS

Placenta previa is a significant risk factor for feto- maternal morbidity and mortality. Following suggestions could be helpful for identification of predisposing factors to improve maternal out come. Creating awareness amongst population about antenatal care by media (radio, TV) .Formation of health education teams for villagers. Introduction of health education programmes at school levels. Training of traditional birth attendants (TBA). Promoting family planning. Availability of transports and communication between cities and villages should be improved, so as to developed accessibility to tertiary care hospital. Early antenatal booking of all cases and regular antenatal checkups. Early diagnosis of all predisposing factors suspecting placenta previa. Arrange training programs for local ''Dais" and educating them regarding hazards of unnecessary vaginal examination in cases of ante partum haemorrhage, and referring high risk patients to tertiary care hospital promptly . Provision of ambulance services, flying squad facilities to evacuate patient from villages with the collaboration of the health department, district government should arrange special

founds for tertiary health center for formation of out reach teams consistent to basic requirement like an obstetrician, sonologist, protable ultrasound machine and transporation, Women health worker program should be encouraged and augmentated.

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