Original Article

Obs & Gynae

Placenta Previa Major Degree; Obstetrical Risk Factors and Maternal Outcome

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ABSTRACT

Introduction: Placenta previa is implemented in lower uterine segment. Haemorrhage is likely to happen on digital examination. Causes of placenta previa have strong association with advanced maternal age multiparity, multiple gestation and previous caesarean section, spontaneous & induced miscarriage, smoking and cocaine abuse. Maternal and fetal well being was assessed by general physical examination. Management plan was according to diagnosis.
Study Design: Descriptive study
Place and duration of study: This study was conducted at Gynae Unit 3, Nishtar Medical College / Hospital, Multan from __
Materials and Methods: Fifty patients who were booked and fifty were un-booked and their ages were between 20-39 years and they were diagnosed case of major degree placenta previa were taken. Risk factors and maternal outcome was seen through Performa.
Result: Total number of deliveries during study period was 4826, 98 patients 2% presented with APH and 50 (51%) patients were diagnosed having major degree placenta previa. Different maternal complications seen during Antenatal, Inter operative and Post-operative period. Operative complications were bladder injury in 1 (2%) cases, DVT in 1 (2%) cases, 2 (4%) cases of pulmonary embolism. Four patients had PPH, one required caesarean hysterectomy, three settled with conservative measures like syntocinon and $PGF_2\alpha$. There was a significant trend between increase in incidences of placenta previa and number of C-sections.
Conclusion: The study has clearly identified the association between increase maternal age and incidence of placenta previa with increasing number of C-section. Clinical judgement and skill in the performance of C-section D&C and other forms of uterine invasive techniques may help to keep subsequent incidence at a reasonably low rate. Family planning should also be emphasized as a strategy towards reduction of parity and C-section rate and incidence of placenta previa.
Key Words: Placenta Previa, Obstetrical risk factors, Maternal Complications.

INTRODUCTION

Placenta previa is implemented in lower uterine segment. Haemorrhage is likely to happen on digital examination[1]. Important distinction is between major degrees of placenta previa (grade 3 and 4) and minor degrees (1 and 2). Bleeding is one of the most life threatening emergencies in obstetric practice. Failure to recognise the condition has led to most cases of avoidable maternal deaths[2]. In the confidential Enquires 50% deaths are related to abruption and placenta previa. Danger of bleeding is very obvious especially in scarred uterus[3]. Causes of placenta previa have strong association with advanced maternal age multiparity, multiple gestation and previous caesarean section, spontaneous & induced miscarriage, smoking and cocaine abuse[4]. Risk of placenta previa increases as five times higher in relation with teenagers and parous women[5]. Another association is with previous D&C, spontaneous abortion, for evacuation of retained products of conception[6.7]. Increase in incidence of placenta previa is associated with increased number of surgeries[8.] Previous caesarean section scar is a risk factor for placenta accreia[9]. Placenta previa is associated with maternal mortality and maternal morbidity may lead to total abdominal hysterectomy[10]. Placental separation and bleeding may cause anaemic new born. Haemorrhage and complications of caesarean section delivery are common causes of maternal morbidity. Although diagnosis of placenta previa is by USG TVS[11] MRI has been used to evaluate placental location in number of studies.

MATERIALS AND METHODS

This study is conducted in Nishtar Hospital Multan. Study is descriptive type and conducted in Gynae Unit 3. Fifty patients who were booked and fifty were un-booked and their ages were between 20-39 years and they were diagnosed case of major degree placenta previa were taken. Risk factors and maternal outcome was seen through Performa. Data was analysed through computer based SPSS version to find out percentage, frequency. On admission patients were inquired in detail for amount of bleeding, period of gestation, labour pains, previous bleeding episodes and loss of fetal movements. Emphasis was given on evaluation of

risk factors such as maternal age, parity, gravidity, previous abortions, prior C-section, socio economic status, multiple pregnancy and cigrette smoking. Maternal and fetal well being was assessed by general physical examination. Management plan was according to diagnosis.

RESULTS

Total number of deliveries during study period was 4826, 98 patients 2% presented with APH and 50 (51%) patients were diagnosed having major degree placenta previa. Out of 50 cases 12(24%) were booked and 38(76%) were admitted as emergency. Age of the patients ranged between (20-39 years) mean 29 one (2%) of the cases occurred at less than 20 years of age. 2 (4%) cases at 20-24, 9 (18%) cases occurred at 25-229 years, 18 (34%) cases occurred at 30-34 years and 20 (40%) at 35 and more than 35 years of age. Parity ranged between (1-7) mean is 5. Five (10%) cases were primigravida, 22 (44%) cases have 1-4 while 23 (46%) have >5 parity. Out of 50 patients 30 (60%) patients have previous history of surgery. Out of 30 patients 12 (40%) had previous C-section and 18 (60%) had prior ERPC or D&C.

Table No. 1: Procedure, no. of patients with percentage

Procedure	No. of Patients	%age
Previous LSCS	12	40
Prior ERPOC or D&C	18	60

Table No. 2: Incidence of Placenta previa by No. of previous C-section.

No. of previous C-section	No. of Placenta previa cases
1	2
2	2
3	3
4	5

Table No. 3: Associated Obstetrical Complications

Complications	No. of patients	%age
Mal-presentation breech	5	25
Transverse lie	3	15
Oblique lie	1	5
Unstable lie	3	15
Twin	1	5
PIH	4	20
Preterm labour	3	15

Period of gestation at the time of C-section ranged between (29-39 week) 40.6% delivered between 34-37 weeks 33 (66%) of the patients preserved with bleeding ranging mild to severe, 4 (8%) patients were asymptomatic and diagnosed on routine USG. 8 (16%) with pain and 5 (16%) with hypovolemic shock. Out of 50 cases only 20 (40%) cases encountered associated obstetrical complications. Different maternal complications seen during Antenatal, Inter operative and Post-operative period. Operative complications were bladder injury in 1 (2%) cases, DVT in 1 (2%) cases, 2 (4%) cases of pulmonary embolism. Four patients had PPH, one required caesarean hysterectomy, three settled with conservative measures like syntocinon and $PGF_2\alpha$. There was a significant trend between increase in incidences of placenta previa and number of C-sections.

Table No. 4: Maternal complications associated with major degree Placenta previa.

Complications	No. of patients	%age
Antenatal complication		
• Anenia	24	75
• Edema	6	18.7
Inter-operative complication		
• Anesthesia	3	9.4
• Tears and leceretion	1	3.1
Massive haemorrhage	7	21.8
Intra-operative complication		
• PPh	4	12.5
• Chest problems	3	9.3
• GIT problems	4	12.5
• UTI	6	18.7
• Anemia	26	81.2
• Wound infection	3	9.4
• Maternal death	2	3.1

DISCUSSION

General incidence of placenta previa in this study came out 1.07% higher than reported incidence of 0.3% and 0.8% in some studies[12]. Reason for this difference is that this study conducted in tertiary care units and with different maternal characteristics. Higher incidence of placenta previa is expected if implantation were random rather than preferentially fundal and increasing maternal age is also associated with higher frequency of placenta previa[13]. Multi parity is also well documented associated risk factor[14]. Analysis of age showed that the findings are consistent with the data from other studies especially with study done by Fiaz As Annath in 2003 that the frequency of placenta previa increases across entire maternal age and is not limited only to mother >30 or 35 years old. <20 years = 2%[15], 20-24 years = 4%, 25-29 years = 18%, 30-34 years = 36% and 35 and more than 35 years = 40%. The usual association with multi parity was also present in the study 7.3 times as many multiparous have placenta previa as nullipara which is higher than reported by Babinszki[16] (a study done in 1999). This is perhaps the result of a decline in

the number of primigravida which is most likely related to more readily available means of contraception and more liberal attitudes. In the study 36% patients had a H/O prior abortion which is consistent with study done by Jhonson in 2003. In this study unspecified abortions were also studied because induced abortions are illegal in our community and most of the abortions are of spontaneous type. In our setup sharp curettage is commonly used instead of suction curettage high incidence of placenta previa[17]. The study also confirms the association with previous C- section. Patients who have C-section were 50 % more prone to have placenta previa[18]. H/O evacuation was in 36%% of patients in this study 25% had undergone previous one or more C-section; increasing number of previous abortions increases the incidence of placenta previa[19]. Haemorrhage is the most life threatening complication of placenta previa such patients need immediate resuscitative measures. Out of 4 patients received in the shock and not survived in spite of best efforts 34.4% of the patients in the study had either intraoperative or post-operative complications. The worst scenario is discovery of morbid adherence of placenta found in 12.5% of the patients gone for hysterectomy, 4 for morbid adherence, one for uncontrolled PPH[20]. Maternal mortality came out 20/1000 which is alarmingly high.

CONCLUSION

The study has clearly identified the association between increase maternal age and incidence of placenta previa with increasing number of C-section. Clinical judgement and skill in the performance of C-section D&C and other forms of uterine invasive techniques may help to keep subsequent incidence at a reasonably low rate.

Major degree placenta previa is associated with considerable maternal morbidity and mortality. The deleterious effects are enhanced in malnourished and anaemic and un-booked patients undergoing emergency surgery. Improvement in social, nutritional and educational status of women, provision of best antenatal care and USG once for placental localization can help to curtail the complication rate. Training of TTBAs in identifying risky deliveries and referral system should be improved. Hospital admission is advocated, such hospitals should be equipped with requisite materials as well as personal that are capable of effectively intervening surgically at short notice. Family planning should also be emphasized as a strategy towards reduction of parity and C-section rate and incidence of placenta previa.

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