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Fetomaternal Outcome in Placenta Previa with Unscarred Uterus
(One Year Prospective Study)

Authors
Dr Khushpreet Kaur, Dr Rama Garg, Dr Arvinder Kaur, Dr Ruchi Jindal
Corresponding Author
Dr Rama Garg

Abstract
Placenta Previa with unscarred uterus is the major cause of antepartum haemorrhage that causes serious morbidity and mortality to both fetus and mother.
Objective: *To study the maternal outcome in placenta previa with unscarred uterus. To study the fetal outcome in Placenta previa with unscarred uterus.*
Material and Methods: *This was the one year prospective study conducted in Govt. Medical College, Patiala in cases of placenta previa with unscarred uterus. During the study period out of 3784 deliveries 86 cases of placenta previa were reported. There were 38 cases of placenta previa with unscarred uterus.*
Results: *Present study confirmed that incidence of placenta previa in unscarred cases is significantly high. The no. of unbooked cases was high. There was one maternal death. Our study showed favourable fetal outcome.*
Conclusion: *The frequency of placenta previa in unscarred uterus is slightly higher in our study than other studies and this problem may be estimated for further planning and management of placenta previa.*
Keywords: *Placenta previa, maternal outcome, fetal outcome.*

Introduction

Placenta previa refers to placenta that is situated wholly or partially in the lower uterine segment. 1It is associated with significant maternal and fetal morbidity and mortality because of unanticipated blood loss and is of the most acute life threatening emergency in obstetrics. Frequency varies with parity; for nulliparous incidence is 0.2% whereas in grand multiparous it may be as high as 5%. 2 Other risk factors include maternal age greater than or equal to 35 years, non white ethinicity, multiple pregnancy, smoking and previous abortion.[3]

Placenta previa with unscarred uterus complicates 0.3%-0.5% of all pregnancies and is a major cause of third trimester haemorrhage.. Significant maternal morbidity in the form of increased incidence of caesarean delivery, increased blood loss and peripartum hysterectomy have been noted in cases of placenta previa and can lead to prolonged hospitalisation in these women.

Premature deliveries occur which lead to higher admission to neonatal intensive care unit and stillbirths.

The traditional classification of placenta previa describes the degree to which the placenta encroaches upon the cervix in labor and is divided into low lying, marginal, partial or complete placenta previa.[4]Recent revised classification of placenta previa consist of two variations:

True placenta previa in which internal cervical os is covered by placental tissue and low lying placenta in which placenta lies within 2 cm of cervical os but does not cover it.[5]

Along with history, clinical examination and ultrasound, MRI has been used in patients with placenta previa, esp. to diagnose adherent placenta. It has been speculated that uterine scarring due to trauma, infection or surgery lead to endomyometrial junction abnormality causing abnormal vascularisation which reduces the differential growth of the lower segment. This prevents placental migration as pregnancy advances.

The aim of this study was to examine the risk factors and fetomaternal outcome in previously unscarred uterus with placenta previa.

Haemorrhage is leading cause of death worldwide. Placenta previa is a major cause of haemorrhage worldwide and frequency of this condition is on rise.[6] So we need to identify and target women at high risk of placenta previa.

Frequency of placenta previa is increasing in primigravida and multigravida with unscarred uterus. So this study was planned to find out the frequency of placenta previa in unscarred uterus so that the management of the problem may be estimated for further planning and management.

Methods

This prospective study was conducted in the department of OBGY at Govt. Medical College Patiala. Cases of placenta previa in unscarred uterus from Feb 2016 to Jan 2017 were studied. Inclusion criteria was all Women over 28 weeks of gestation with placenta previa in unscarred uterus, Placental localisation was achieved by transabdominal ultrasounds in these patients.

Risk factors in terms of maternal age, parity, gestational age, were studied.

Data tabulation

Total number of deliveries=3784

Total no. of patients with unscarred uterus=2259

Total number of placenta previa=86

Overall incidence of placenta previa=2.27%

Total no. of placenta previa in unscarred uterus=38

Incidence in unscarred uteri=1.68%

Table 1: Maternal characteristics

Age(yrs)	No.	%
<25	23	60.53
25-30	10	26.32
31-35	4	10.53
>36	1	2.62
Parity		
0	11	28.96
1	8	21.05
2	10	26.31
>3	9	23.68
Gestational age(weeks)		
<37	20	52.63
>37	18	47.37

60.53% of women in the study were less than 25 years of age while 2.62% of women with unscarred uteri were over 36 years of age. More than 50% of women were multiparous. .Significant no. of women delivered before 37 weeks of gestation (52.63%).High number of patients were unbooked (66.6%).

Table 2: Type and grading of placenta previa

Grading	No.	%
Major	31	81.58
Minor	7	18.12
Type		
Anterior	13	34.21
Posterior	25	65.79
Invasive placenta		
Accreta	0	0
Percreta	0	0

81.58% had major degree placenta previa. Majority of the patients had posterior placenta (65.79%).There was no case of adherent placenta.

Table 3: Complication

Fetal malpresentation	8	21.05%
PPH	10	26.31%
Adherent placenta	0	0
Haemorrhagic shock	1	2.63%
Maternal mortality	1	2.63%

Table 3: Shows the complications. There were 10 Cases of PPH out of which 8 (21.05%) were

Controlled by uterotonics alone. Uterine artery ligation done in 2.63%. Blood Transfusion was given in 68.41% of cases. Caesarean hysterectomy was done in only one case due to haemorrhagic shock .There was one maternal death.

Table 4: Management of Complications

Blood transfusion	26	68.41%
Uterotonics	8	21.05%
Placental bed suturing	2	5.26%
Uterine packing	1	2.63%
Ballon tamponade	2	5.26%
Uterine artery ligation	1	2.63%
Internal iliac ligation	0	0%
Caesarean hysterectomy	1	2.63%

Table 5: Distribution of fetal outcome

Fetal outcome	**No.**	**%**
Alive	36	94.74
Still birth	2	5.26
Neonatal deaths	3	8.82
Total	38	100

Fetal outcome was favourable (94.74%)

Table No.6 Distribution according to mode of delivery

Mode of delivery	**No.**	**%**
Vaginal	3	7.89%
Emergency cesarean	19	50%
Elective cesarean	16	42.10%
Total	**38**	**100**

Vaginal delivery occurred in 7.89% subjects and 58.33% needed emergency Caesarean sections.

Table 7-Relative Incidence

Overall incidence of placenta previa	Incidence in scarred uteri	incidence in unscarred cases
2.27%	3.14%	1.68%

Discussion

The overall incidence of placenta previa in our study was 2.27% which is higher than the study by Gayatri et al (0.62%)[8], and Ahmed et al (1.3%)[7]. The incidence of placenta previa in women with unscarred uterus in our study group was 1.68% which is similar to study by Saima gul bashir 1.19%[9]

In our study maximum number of women were <25 years of age (60.23%) Which is consistent with Gayatri et al who reported the incidence of placenta previa as 68% in 20-25 years .Reddy et al reported 73% incidence in 20-29 years age group[10] which is comparable to 71.6% in our study. According to the study by hung et al 71.3% were in age group of 20-35 years which is lower than our results i.e 84.1%.

Our study shows increasing parity increases the risk of placenta previa. The results are consistent with Reddy et al in which 69% were multiparous.

52.63% women had preterm births. Similar results were found by Gayatri et al where 58% of women had premature births.[3] There were 2 still births (5.26%) in our study comparable to 9% in the study by Gayatri et al and 13.2% by Ahmed et al.[2]There was one maternal deaths in this study similar to study of Gayatri et al.[2]

Conclusion

The incidence of placenta previa with unscarred uterus is on rise. The emphasis should be on institutional delivery in a tertiary care centre with multidisciplinary care i.e. involvement of senior obstetrician, anaesthetist, neonatologist, sonologist and haematologist.

The family planning services should be further improved to attain a decline in the number of women of high parity. The morbidity associated with placenta previa can be reduced by detecting the condition in the antenatal period by ultrasound, before it becomes symptomatic. Early diagnosis by ultrasound and planned delivery should be the goal.

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