

# Frequency of multiparity and previous caesarean section in patients with placenta previa

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## Abstract

**Objective.** This study was conducted to find out frequency of previous caesarean section and multiparity in patients having placenta previa. **Study design.** It was a descriptive cross sectional study. **Settings.** This study was carried out at department of obstetrics and gynaecology, Nishtar Hospital Multan. **Study Period.** This study was carried out from April 2016 to April 2017. **Subjects and Methods.** Two hundred and fifty four patients were included in the study according to the inclusion criteria. The required information with age, parity and history of previous cesarean section was collected on a specially designed proforma. Whole information was analyzed through SPSS version 20. **Results.** In our study most of the patients were 31-40 yrs old (55.5%), followed by 20-30 yrs (37.79%). Most of the patients were multigravida (81.10%) and only (18.89%) were primigravida in our study. Majority of the patients (57.08%) were at <37wks and 62.59% were having previous caesarean section. **Conclusion.** Those patients with previous caesarean section who are multiparous and above thirty yrs of age constitute a high risk group for having placenta previa in next pregnancy so these high risk patients should be identified, properly counseled and appropriate steps should be taken in next pregnancy so as to optimize fetomaternal outcome.

**Keywords;** Placenta previa, cesarean section, multiparity.

## Introduction.

Placenta previa is the placenta that gets implanted into the lower uterine segment. It can be classified as major degree in which placenta covers the internal cervical os or can be of minor degree in which placenta though present in lower uterine segment does not cover the cervical os.<sup>1</sup> Incidence of placenta previa is 4 in 1000 patients. Old age multiparity previous caesarean section are the strongest risk factors for placenta previa. Smoking, cocaine and male fetus also contribute towards placenta previa.<sup>2</sup> Commonest presenting complaint for placenta previa is painless vaginal bleeding. In most of the cases bleeding is mild but occasionally can be heavy and even life threatening. Placenta previa can result in serious fetomaternal complications including maternal and neonatal mortality, IUGR, preterm delivery, antepartum and post partum hemorrhage, need for blood transfusion and emergency hysterectomy.<sup>1</sup> There is a strong correlation between multiparity, previous caesarean section and placenta previa. In one local study, incidence of placenta previa was 4.2%. among 226 patients majority of the patients were multipara (8.3%) and (71%) of patients had a history of previous caesarean section.<sup>3</sup> This study was conducted specially to find out frequency of multiparity and previous scars in patients with placenta previa in southern Punjab to find any geographical variation. In this way we can find out the risk factors that can be prevented and steps can be taken to reduce increasing trend of unnecessary caesarean section thus decreasing the incidence of placenta previa particularly in southern Punjab.

## Material and Methods.

This study was carried out in obstetrics and gynaecology department of Nishtar Hospital Multan from April 2016 to April 2017. A total of 254 patients in reproductive age group (15-45 yrs) both primigravida and multigravida with placenta previa diagnosed on ultrasound were included in the study. Patients with placental abruption vasa previa and genital tract trauma were excluded. Permission was taken from ethical committee. The required information parity, history of previous caesarean section and demography of the patients was recorded on proforma.

## Results

In our study most of the patients were 31-40 yrs old (55.51%), followed by 20-30 yrs (37.79%). Most of the patients were multigravida (81.10%) and only (18.89%) were primigravida. In our study majority of the patients (57.08%) were at < 37 wks and 62.59% were having previous caesarean section.

**Table 1**  
**Age wise distribution of cases**  
 (n=254)

Age Group	Number of Cases	Percentage (%)
<20	6	2.36
20-30	96	37.79
31-40	141	55.51
>40	11	4.33

**Table 2**  
**Parity wise distribution of cases**  
 (n=254)

Gravidity and Parity	Number of Cases	Percentage (%)
Primigravida	48	18.89
Multipara	206	81.10
Total	254	99.99

**Table 3**  
**Gestational Age at the time of presentation**  
 (n=254)

Gestational Age at the time of presentation	Number of Cases	Percentage (%)
≤37 wks	145	57.08
>37 wks	109	42.91

**Table 4**  
**History of Previous Caesarean Section**  
 (n=254)

History of Previous Caesarean Section	Number of Cases	Percentage (%)
Yes	159	62.59
No	95	37.40
Total	254	99.99

## Discussion

Placenta previa is the placenta that gets implanted into the lower segment of uterus either completely or partially.<sup>4</sup> Hemorrhage from placenta previa can be massive and can pose a threat to maternal life.<sup>5</sup> Placenta previa occurs in 0.3% to 0.8% of pregnancies.<sup>6</sup> There are multiple reasons for placenta previa. It is commonly associated with placenta previa in previous pregnancy, previous caesarean delivery, myomectomy scar, dilation and curettage old age and multiparity.<sup>7-10</sup> Advanced maternal age particularly those women who are above 35yrs of age are at high risk for development of placenta previa.<sup>11</sup> In our study most of the patients were 31-40 yrs old (55.51%) 37.79% patients were in age group (20-30yrs) 2.36% of patients were less than 20 yrs and 4.33% of

cases were more than 40 years old. Similar results are seen in an international study in which average age of the patients was 30.2 yrs.<sup>12</sup> In another study mean age of the patients was 29yrs.<sup>13</sup> In a local study from, Pakistan most of the patients (64%) were 30 yrs of age.<sup>14</sup> Regarding gravidity and parity most of the patients in our study were multigravida (81.10% and only (18.89%) were primigravida. Results from one international study showed most of the patients with placenta previa to be multiparous (63.7%).<sup>12</sup> In a local study from Pakistan involving 100 patients 53 patients were multigravida, 33 were grand multigravida and only 14 patients were primigravida.<sup>14</sup> Regarding gestational age in our study most of the patients were less than <37 wks (57.08%) and 42.91% of patients were more than 37 weeks pregnant. These results are consistent with the results of another study in which mostly patients presented between 28-34wks.<sup>13</sup>

Previous caesarean section is strangle associated with abnormal placentation.<sup>15-19</sup> A study by Begum showed the incidence of placenta previa to be 14.28% in patients with previous caesarean section.<sup>20</sup> In our study 62.59% of patients were having history of caesarean section in previous pregnancies and in 95 patients (37.40%) there was no previous history of caesarean delivery. A study from Pakistan showed that 40% of woman were having history of previous caesarean section.<sup>14</sup>

### **Conclusion.**

Those patients with previous caesarean section, who are multiparous and above thirty years of age constitute a high risk group for having placenta previa in next pregnancy. So these high risk patients should be identified, properly counseled and appropriate steps should be taken in next pregnancy so as to optimize fetomaternal outcome.

### **References.**

1. Tower C. Obstetric emergencies. In: Baker PN, Kenny LC, editors. Obstetrics by ten teachers. London; Book Power; 2011. p. 241-57.
2. Hemminki E, Merilainen J. Long-term effects of caesarean section: ectopic pregnancies and placental problems. *Am J Obstet Gynecol.* 1996;174:1569-74.
3. Urganci IG, Cromwell DA, Edozien LC, Smith GC, Onwere C, Mahmood TA, et al. Risk of placenta previa in second birth after first birth caesarean section:a population-based study and meta-analysis. *BMC Pregnancy Childbirth.* 2011;11:95.
4. Danforth DN, Buckingham JC, Rodd C, JW Jr. Connective tissue changes incident to cervical effacement. *Am J Obstet Gynecol.* 1960;80:939-45.
5. Holzman C, Paneth N, Liittle R, Pinto Martim J. Perinatal brain injury in premature infants born to mothers using alcohol in pregnancy. *Paediatrics.* 1995;95:66-8
6. Sheiner E, Shoham-Vardi I, Hallak M. Placenta previa: obstetric risk factors and pregnancy outcome. *J Matern Fetal Med.* 2001;10:414.
7. Kwawukume EY. Antepartum haemorrhage In: Kwawukume EY and Emuveyan EE. (eds) *Comprehensive Obstetrics in the tropics.* Asante and Hittscher Printing press Ltd 2002; pp.140-150.
8. Ezechi OC, Kalu BKE, Nwokoro C.A, Njokanma FO, Loto OM, Okeke GCE. Placenta praevia: a study of risk factors, maternal and fetal outcome. *Trop J Obstet Gynaecol.* 2004;21:131-134.
9. Eniola AO, Bako AU, Selo-ojeme DO. Risk factors for Placenta praevia in Southern Nigeria. *East Afr Med J.* 2002;79:535-538.
10. Obed JY, Omigbodun A. Rupture of the uterus in patients with previous myomectomy and primary caesarean section Scars: a comparison. *Obstet Gynaecol.* 1996;16:16-21.
11. Hung TH, Hsieh CC, Hsu JJ, Chiu TH, Lo LM, Hsieh TT. Risk factors for placenta previa in an Asian population. *Int J of Gynecol and Obstet.* 2007;97:26-30
12. Anzaku AS, Musa J. Placenta praevia: incidence, risk factors, maternal and fetal outcomes in a Nigerian teaching hospital. *Jos Journal of Medicine.* 2012;6(1):42-6
13. Sarella L, Chinta . A Study On maternal and Perinatal Outcome in Placenta Previa. *Sch J App Med Sci.* 2014;2(5A):1555-1558.
14. Naveed P, Naib JM, Fatima S, Khan S. Risk factors associated with placenta previa in patients presenting to a tertiary care teaching hospital in Peshawar. *J Med Sci.* 2012;20(3):146-8.
15. Cieminski A, Dlugolecki F. Relationship between placenta previa and maternal age, parity and prior caesarean deliveries. *Ginekol Pol.* 2005;76:284-9

16. Nasreen F. incidence, causes and outcome of placenta previa. *JPMI*. 2011;17(1):99-104
17. Itedal A, Qurashi M, Moawia A, Sayed M. Association of Caesarean Section and Multiparty With Placenta Previa in Sudan. *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*. 2015;14(1):29-32.
18. Babinszki A, Kerenyi T, Torok O, Grazi V, Lapinski RH, Berkowitz RL. Perinatal outcome in grand and great-grand multiparity: effects of parity on obstetric risk factors. *AmJ ObstetGynecol*. 1999;181:669-74.
19. Choi SJ, Song SE, Jung KL, Oh SY, Kim JH, Roh CR. Antepartum risk factors associated with peripartum cesarean hysterectomy in women with placenta previa. *Am J Perinatal*. 2008;25:37-41.
20. Nisar N, Sohoo NA. Emergency peripartum hysterectomy: frequency, indications and maternal outcome. *J Ayub Med Coll Abbottabad*. 2009;21(1):48-51.