# Frequency of Placenta Praevia In Previous Cesarean Section

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*ABSTRACT*

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|---|---|
| *Objective* | *To find out the frequency of placenta previa in women with previous cesarean section.* |
| *Study design* | *Descriptive, cross-sectional study.* |
| *Place & Duration of study* | *Department of Obstetrics & Gynecology, Unit III Civil Hospital Karachi, from September 2018 to March 2019.* |
| *Methodology* | *A total of 96 women, gestational age =24 weeks with history of previous one or more cesarean sections were included. Detailed history was taken and antenatal record were reviewed. Present age of gestation was calculated from last normal menstrual period and confirmation done by using ultrasound. Placenta previa was confirmed by ultrasound scan as well.* |
| *Results* | *Age range of study participants was from 15 year to 49 year. Mean gestational age was 32 weeks, mean parity of 3, mean gravidity of 4, and mean BMI 29 kg/m$^2$. Thirty-six women who had previous cesarean sections found to have placenta previa.* |
| *Conclusion* | *The frequency of placenta previa was significantly more in women who had previous cesarean section.* |
| *Key words* | *Cesarean section, Placenta previa, Placenta accreta.* |

**INTRODUCTION:**

A study done in Asian women showed that placenta previa was a common condition, affecting 12.2 per 1000 deliveries a year.[1] One of the major causes of antepartum hemorrhage and fetomaternal mortality was placenta previa.[2,3] It accounts for one third of all cases of antepartum hemorhages.[4]

According to RCOG guideline when placenta is completely covering the internal os of cervix its placenta previa major and when placenta is in lower uterine segment but not covering the internal os of cervix, it is placenta previa minor.[5] Increasing rate of cesarean section is a global phenomenon and repeat elective cesarean section is a major cause of this rise.[6] According to a national study prevalence of placenta previa was 52% in those patients who had given birth by cesarean section previously by me rare group.[7] In another study from Pakistan increased frequency of placenta previa was noted in women who had repeated cesarean sections.[8]

Different figures have been reported from other centers.[9,10] In order to ensure good maternal outcomes multi disciplinary approach is mandatory in most difficult cases. Due to lack of awareness, majority of women with previous cesarean section do not report early to the hospital, therefore many cases of placenta previa are missed unless acute emergency occurs. The objective of this study was to determine the frequency of placenta previa in patients with previous cesarean section in our set up.

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**METHODOLOGY:**

This descriptive, cross sectional study was conducted in the Department of Obstetrics & Gynecology, Unit III, Civil Hospital Karachi, from September 2018 to March 2019. Sample size of 96 was calculated using the WHO software. Non-probability, consecutive sampling technique was employed. Women of age group between 15 year - 49 year, with the history of one or more cesarean sections and gestational age from viability 24+1 weeks up to 41+6 weeks, calculated by LMP and earliest scan available, were included. Primigravida, other causes of antepartum hemorrhage like placental abruption, ruptured vasa previa, genital tract tumors, local infection of cervix/vagina, cervical ectropion, cervical trauma and antepartum hemorrhage of unknown origin as assessed by ultrasound, were excluded.

Consenting patients admitted through OPD or emergency were enrolled in the study. Detailed history was taken and antenatal record was reviewed. Placenta previa was confirmed by ultrasound scan. History of previous cesarean sections was taken and previous hospital records reviewed if available. All women were interviewed for demographic information like age, parity, gravida and antenatal care. The data were entered in a pre designed form. Data was entered into and analyzed using SPSS version 20.0. Qualitative variables were described as frequencies and percentages like placenta previa, booking status, multiparity and miscarriages. Mean and standard deviation were computed for age, height, weight, gestational age and number of previous cesarean sections.

**RESULTS:**

The mean age of the women was 28 year, mean gestational age 32 weeks, and mean BMI 29 kg/$m^2$. The frequency of placenta praevia was 36 (37.50%) in women who had previous cesarean section. The parity and type of placenta previa are given in table I and II.

**DISCUSSION:**

Cesarean section is a frequently performed procedure in obstetrics. The dramatic feature of modern obstetrics is the rising rate of caesarean section in both developing and developed countries.[11,12] As the number of previous cesarean sections is increasing, the incidence of having placenta accreta is also multiplying reaching with up to eight-fold increase in those who had previous two or more cesarean sections.[13,14] A study has shown that the incidence of placenta accreta is markedly high in primary elective cesarean sections in comparison with primary emergency cesarean sections.[15]

Mostly it is the scarred uterus or parity as a contributor of abnormal placentation. In a similar study of 120 women who had given birth by previous one or more than one cesarean sections the frequency of placenta praevia was 27.5% which is less than our study. Study also found parity and placenta previa as significant factors associated with placenta previa.[16]

In another Pakistani study conflicting results with regards to frequency of placenta previa reported. It was high in patients who had given birth by normal vaginal delivery as compared to the women who

**Table I: Distribution of Patients According to Parity (n=96)**

| Parity | No. of Patients | % |
|---|---|---|
| <3 | 83 | 86.46 |
| > 3 | 13 | 13.54 |
| Total | 96 | 100.0 |

Mean ± SD = 2.72 ± 0.80

**Table II: Distribution of Patients According to Type of Placenta Previa (n=36).**

| Type of placenta previa | No. of Patients | % |
|---|---|---|
| Placenta previa major | 17 | 47.22 |
| Placenta previa minor | 13 | 36.11 |
| Placenta previa accreta | 05 | 13.89 |
| Placenta previa increta | 00 | 0.0 |
| Placenta previa percreta | 01 | 2.78 |

had previous cesarean delieveries. It was not found in para 4 or less in both the groups. So parity of 4 or more was found to be a risk factor. None of the women with previous one scar had placenta previa, while with previous 2 scars one had placenta previa.[17] In another study placenta previa was not found in women below 25 years of age.[18]

Another study which mainly focused on placenta praevia accrete concluded that there was no significant association of frequency of placenta previa in their next pregnancies among those women who had previous one caesarean section. On the contrary increasing maternal age and increasing parity had significant relation with increasing incidence of placenta previa.[19] A study identified not just placenta praevia in previous cesarean section but also life-threatening morbidly adherent placenta. Presence of previous cesarean section scar was identified as the main risk factor.[20] Coskun et al in a recent study addressed the adverse effects of placenta preavia leading to significant maternal morbidity.[21]

**CONCLUSION:**

The frequency of placenta previa was high in women who had previous cesarean section.

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