

ASSOCIATION OF INCREASING PARITY WITH UTERINE CURETTAGE IN PLACENTA PREVIA PATIENTS.

DR. ANDLEEB TABASSUM

NISHTAR HOSPITAL, MULTAN, PAKISTAN.

DR. MASABA ANDLEEB, MBBS

NISHTAR HOSPITAL, MULTAN, PAKISTAN.

DR. MUHAMMAD ZOHAIB SADIQ, MBBS

NISHTAR HOSPITAL, MULTAN, PAKISTAN.

ABSTRACT

Background; Placenta Previa is an obstetric complication that occurs in the second and third trimester of pregnancy. It may cause serious morbidity and mortality to the mother. This study was conducted to ascertain uterine curettage in placenta previa. **Objective;** To determine association of increasing parity with uterine curettage in patients with placenta previa at a tertiary care hospital. **Subjects and Methods;** A total 96 patients with placenta previa aged 20 – 45 years having placenta previa were enrolled from Department of Obstetrics & Gynaecology, Nishtar Hospital, Multan in this cross-sectional study. Data was entered and analyzed by SPSS version 20.0. **Results;** Our study comprised of a total of 96 patients meeting inclusion criteria of our study. Mean gestational age of our study cases was 38.56 ± 1.25 weeks. Mean age of our study cases was 31.20 ± 4.91 years (with minimum age of our study cases was 24 years while maximum age was 42 years). Our study results have indicated that majority of our study cases i.e. 62 (64.6 %) were aged more than 30 years. Of these 96 study cases, 52 (54.2 %) belonged to rural areas and 44 (45.8 %) belonged to urban areas. Of these 96 study cases 58 (60.4%) were having poor socioeconomic status and 38 (39.6%) belonged to middle income families. Of these 96 study cases, 51 (53.1%) were illiterate while 45 (46.9%) were literate. Previous history of cesarean section was positive in 55 (57.3%) of our study cases. Mean body mass index of our study cases was 27.64 ± 2.11 kg/m² and obesity was present in 30 (31.3 %) of our study cases. Mean parity of our study cases was 4.18 ± 1.24 and 51 (53.1%) had parity more than 3. Placenta previa type 1 was present in 4 (4.2%), type 2 in 29 (30.2%), type 3 placenta previa in 26 (27.1%) and 37 (38.5%) had type 4 placenta previa. Uterine curettage was noted in 49 (51%) and significant association with increasing parity was noted. **Conclusion;** Very high frequency of uterine curettage was noted among patients presenting with placenta previa in our study. Uterine curettage was significantly associated with obesity, increasing parity and type of placenta previa.

Keywords; Placenta previa, uterine curettage, Frequency.

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INTRODUCTION:

Placenta previa complicates approximately 0.3–0.5% of pregnancies with no prior cesarean delivery¹. In placenta previa (PP), the placenta is located over or very near the internal cervical os^{2,3}. Maternal and fetal morbidity and mortality from PP are considerable, and associated with high demands on health care resources. Given the rising incidence of cesarean section combined with increasing maternal age, the number of cases of PP and its complications, including placenta accreta (PA), will continue to increase⁴.

The risk of developing placenta previa increase progressively with increasing in number of cesarean sections with ≥ 3 cesarean deliveries the chance of having previa is 37%. Other risks for placenta previa include uterine surgery, increasing maternal age, high parity, multi-fetal gestation, smoking and cocaine use⁵. Uterine curettage has been

reported to be 46 % in patients with placenta previa ⁶. Studies have shown that placenta previa carries greater risks of surgical complications including obstetrics hysterectomy and massive haemorrhage requiring blood transfusion ⁷.

Surgical injury to the bladder, viscera, and ureters and renal failure may occur. Massive obstetrical haemorrhage in placenta previa is associated with severe maternal morbidity and mortality worldwide accounting for 30% maternal deaths in Asia. There are several neonatal complications associated with placenta previa that are often related to prematurity ⁸. PP is known to be associated with prematurity. However, there is debate about the effect of PP on fetal growth; some studies have suggested that pregnancies with PP are at risk of low birth weight and a low Apgar score ⁹. The purpose of this study is to document current magnitude of the problem among targeted population.

MATERIALS AND METHODS:

A total 96 patients with placenta previa aged 20 – 45 years having placenta previa were enrolled from Department of Obstetrics & Gynaecology, Nishtar Hospital, Multan in this cross-sectional study. Informed written consent was taken from each patient before inclusion. Detailed history and physical examination of our study cases was arranged by the researcher itself. These study cases/patients underwent baseline investigations like ultrasonography (done by a consultant Sonologist having more than 5 years) to diagnose different stages of placenta previa and previous history of uterine curettage. All the data was entered and analyzed by using SPSS version 20.0. The quantitative variables like age, BMI and gestational age were presented as mean and standard deviation. Frequencies and percentages were calculated for age groups, type of placenta previa, uterine curettage, residential status, previous history of cesarean sections and educational status. Effect modifiers like age, parity, obesity, residential status, type of placenta previa, previous history of cesarean sections and obesity were controlled through stratification and post-stratification student chi-square test was applied to see their effect on outcome. P-value ≤ 0.05 was considered as significant.

RESULTS;

Our study comprised of a total of 96 patients meeting inclusion criteria of our study. Mean gestational age of our study cases was 38.56 ± 1.25 weeks. Mean age of our study cases was 31.20 ± 4.91 years (with minimum age of our study cases was 24 years while maximum age was 42 years). Our study results have indicated that majority of our study cases i.e. 62 (64.6 %) were aged more than 30 years. Of these 96 study cases, 52 (54.2 %) belonged to rural areas and 44 (45.8 %) belonged to urban areas. Of these 96 study cases 58 (60.4%) were having poor socioeconomic status and 38 (39.6%) belonged to middle income families. Of these 96 study cases, 51 (53.1%) were illiterate while 45 (46.9%) were literate. Previous history of cesarean section was positive in 55 (57.3%) of our study cases. Mean body mass index of our study cases was 27.64 ± 2.11 kg/m² and obesity was present in 30 (31.3 %) of our study cases. Mean parity of our study cases was 4.18 ± 1.24 and 51 (53.1%) had parity more than 3. Placenta previa type 1 was present in 4 (4.2%), type 2 in 29 (30.2%), type 3 placenta previa in 26 (27.1%) and 37 (38.5%) had type 4 placenta previa. Uterine curettage was noted in 49 (51%) and significant association with increasing parity was noted (Table No. 1).

Table No. 1

Stratification of Uterine curettage with regards to Parity.

(n = 96)

Parity	Uterine curettage		P – value
	Yes (n=49)	No (n=47)	
Up to 3 (n=45)	14	31	0.001
More than 3 (n=51)	35	16	
Total	96		

DISCUSSION;

Placenta previa is an obstetric complication characterized by placental implantation into the lower segment of the uterine wall, covering whole (major) or part (minor) of the cervix¹⁰⁻¹². It complicates 0.4% of pregnancies at term^{13, 14}. Placenta previa usually presents with painless vaginal bleeding in the late second or early third trimester. It is diagnosed on ultrasound during the second trimester or incidentally during an operation¹⁵⁻¹⁸.

Our study comprised of a total of 96 patients meeting inclusion criteria of our study. Mean gestational age of our study cases was 38.56 ± 1.25 weeks. Shaikh et al¹⁹ also reported 38 ± 1.4 years mean gestational age of the patients with placenta previa which is close to our study results.

Mean age of our study cases was 31.20 ± 4.91 years (with minimum age of our study cases was 24 years while maximum age was 42 years). Our study results have indicated that majority of our study cases i.e. 62 (64.6 %) were aged more than 30 years. Shaikh et al¹⁹ also reported 30.1 ± 5.6 years mean age of the patients with placenta previa which is close to our study results. A study conducted by Omokonye et al¹⁸ also reported similar results. A study conducted by Senkoro et al²⁰ has also reported 29.07 ± 6.12 years mean age of the patients with placenta previa which is close to our study results. Nasreen et al⁶ has reported similar results. A study conducted by Raheel et al²¹ also reported 31.09 ± 5.38 years mean age of the patients with placenta previa which is close to our study results.

Of these 96 study cases, 52 (54.2 %) belonged to rural areas and 44 (45.8 %) belonged to urban areas. Of these 96 study cases 58 (60.4%) were having poor socioeconomic status and 38 (39.6%) belonged to middle income families. A study conducted by Omokonye et al¹⁸ also reported 81.4 % women with placenta previa were from poor families which is in accordance with our study findings. A study conducted by Senkoro et al²⁰ has also reported 71.1 % patients with placenta previa belonged to rural areas which is in compliance with our study results.

Of these 96 study cases, 51 (53.1%) were illiterate while 45 (46.9%) were literate. Previous history of cesarean section was positive in 55 (57.3%) of our study cases. Omokonye et al¹⁸ also reported 47.4 % women with placenta previa had previous history of cesarean section deliveries which is close to our study results.

Mean body mass index of our study cases was 27.64 ± 2.11 kg/m² and obesity was present in 30 (31.3 %) of our study cases. Shaikh et al¹⁹ also reported 28.4 ± 5.9 kg/m² which is in compliance with our study results.

Mean parity of our study cases was 4.18 ± 1.24 and 51 (53.1%) had parity more than 3. Shaikh et al¹⁹ also reported 4.02 ± 1.2 which is close to our study results. A study conducted by Omokonye et al¹⁸ also reported 35.4% parity 2 – 4 and 51.2% had parity more than 5 which is in compliance with our study results. In a study conducted by Nasreen et al⁶, 43% had parity 1 – 4 while 45 % had parity equal or more than 5 which is close to our study results.

Placenta previa type 1 was present in 4 (4.2%), type 2 in 29 (30.2%), type 3 placenta previa in 26 (27.1%) and 37 (38.5%) had type 4 placenta previa. Shaikh et al¹⁹ also reported similar results. In a study conducted by Nasreen et al⁶, type 1 placenta previa was noted in 7 %, type 2 placenta previa in 29 %, type 3 placenta previa in 27 % and type 4 placenta previa was noted in 37 % which is in compliance with our study results.

Uterine curettage was noted in 49 (51%) of our study cases. In a study conducted by Nasreen et al, uterine curettage has been reported to be 46 % in patients with placenta previa ⁶ which in accordance with our study results.

CONCLUSION;

Very high frequency of uterine curettage was noted among patients presenting with placenta previa in our study. Uterine curettage was significantly associated with obesity, increasing parity and type of placenta previa.

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