

SCARRED UTERUS; FREQUENCY OF PLACENTA PRAEVIA

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DR. SAIMA PERVEEN

Department of Gynae and Obstetrics
Holy family Hospital Rawalpindi

DR. ALI ZUL HASNAIN

Department of Gynae and Obstetrics
Holy family Hospital Rawalpindi

ABSTRACT: Objective: To study frequency of Scarred Uterus in placenta praevia. **Design:** Descriptive observational study. **Place and Duration Of Study:** December 2008-December 2009 Holy family Hospital Rawalpindi. **Patients and Methods:** 50 patients with placenta praevia presented to Holy Family Hospital Gynae and Obs unit II during this period. All patients either admitted through emergency or Gynae outpatient department were included. **Results:** The mean age of patients with placenta Praevia was 29.04 year with (SD =5.11). The mean gestational age was 34.6 weeks and (SD = 2.7). Fourteen (28%) patients were gravida 2 and 13(26%) were primigravida. Fifteen (30%) patients were para 1 & 14 (28%) were para 0. Painless vaginal bleeding was the presenting complaint in 38(76%) patients, whereas 12(24%) patients were diagnosed on routine ultrasonography. Nine (18%) cases underwent spontaneous vertex delivery and 41 (82%) cases were delivered by caesarean section. Placenta Praevia type 1 in 7 (14%) cases. Placenta Praevia type 2 in 20 (40%) cases, type 3 in 14 (28%) cases, type 4 in 9 (18%) cases. Previous history of scarred uterus was found in 16 (32%) cases. Post partum haemorrhage occurred in 13 (26%) cases. caesarean hysterectomy in 5 (10%) cases. **Conclusions:** A scarred uterus leads to increase frequency of Placenta Praevia, scarring of uterus can be reduced by keeping the caesarean section rate within reasonable limits and instead of doing surgical evacuation of retained products of conception, suction and evacuation by suction canula.

Key words: Placenta Praevia, Increta, Accreta, Percreta, Parity, Curettage.

INTRODUCTION

Placenta praevia is defined as "Placenta that is situated entirely or partly in the lower uterine segment¹. Placenta praevia can be lateral, marginal or central. Central placenta praevia is the most dangerous one². The exact cause of placenta praevia is not known, yet there are certain associations with placenta praevia. These include maternal age, parity, multiple pregnancies, and previous caesarean section^{3,13}. The most identifiable etiological factor is previous endometrial damage. This has been documented in a retrospective case-control study by Rose and Chapman who confirmed the greater likelihood of placenta praevia with previous caesarean section, curettage and myomectomy⁵.

Placenta praevia usually presents as painless vaginal bleeding. The bleeding may be provoked by coitus, trauma or unwise digital examination. The maternal mortality is about 0.1% due to haemorrhage^{6,18,22}. Perinatal mortality is because of prematurity⁷.

Although clinical features may help but placenta praevia is usually diagnosed by ultrasonography^{23,24}. Normally the placenta moves up in the upper uterine segment with growing pregnancy⁸. In previously scarred uterus placenta fails to do so, because the placenta pierces

deep in the scarred tissue, as fibrous tissue is less vascular²⁰. The aim of study is to determine the frequency of scarred uterus in patients of placenta praevia. Although caesarean section is thought to be a convenient mode of delivery but it is a major abdominal surgery with its own risks and itself increases the risk of development of placenta praevia in next pregnancy⁹. Thus caesarean section should be performed only when inevitable¹⁰.

PATIENTS AND METHODS

This descriptive study was conducted in Gynae and Obstetric unit-II, Holy family hospital Rawalpindi. All pregnant women with placenta praevia irrespective of history of scarred or unscarred uterus admitted through outdoor or emergency were included in this study. Duration of study was one year from 03 December 2008 to 03 December 2009. Fifty patients of placenta praevia presented in Gynae unit during this period were included in the study through non probability convenient sampling.

All patients presenting with placenta praevia at or above 28 weeks of gestation were included. Patients with history of vaginal bleeding before 28 weeks of gestation and placental abruption were excluded from the study. Data were collected on a Specially designed proforma

including demography, details of present pregnancy, past obstetrical history and any other history of surgery of uterus. Data had been analyzed using SPSS version 15. Descriptive statistics were used to describe the data i.e. mean and standard deviation (SD) for quantitative variables while frequency and percentage for qualitative variables.

RESULTS

Majority of patients with placenta previa that is 37(74%) were seen among age ranged from 20-40 years with mean of 29.04 + 5.11. Gestational age at the time of presentation was 29 weeks, 2(4%) to 39 weeks, 2(4%) with a mean of 34.6 + 2.7. Eleven (22%) patients were at 34 weeks gestational age. Fourteen (28%) patients were gravida 2 & 13(26%) were primigravida. Two (4%) patients were para 5, 15(30%) were para 1 & 14 (28%) patients were para 0. Thirtyeight (76%) cases presented by painless vaginal bleeding and 12 (24%) cases were diagnosed on routine ultrasonography. Nine (18%) cases underwent spontaneous vertex delivery and 41 (82%) cases were delivered by caesarean section. Almost all cases delivered vaginally were with minor degree of placenta praevia. Placenta Praevia type 1 in 7

(14%) cases ,Placenta Praevia type 2 in 20 (40%) cases ,type 3 in 14 (28%) cases ,type 4 in 9 (18%) cases .Previous history of scarred uterus was found in 16 (32%) cases which include caesarean section, evacuation and curettage for retained products of conception and myomectomy. 10% of cases having history of previous one scar,6% of the cases with previous 2 scar , 2 % cases with previous 4 scarred due to caesarean section. 14 % of the cases were with history of evacuation and curettage. Post partum haemorrhage occurred in 13(26%) cases .caesarean hysterectomy was done in 5 (10%) cases that is due to uncontrolled haemorrhage. Morbidly adherent placenta was seen in 6 (12%) cases. One (2%) cases were complicated by urinary bladder injury.

DISCUSSION

Placenta praevia is a major cause of morbidity and mortality in both the developed and developing countries like Pakistan. The aim of the study was to look for frequency of placenta praevia with scarred uterus that can be due to evacuation and curettage, cesarean section and myomectomy etc¹¹.

In this study frequency of previous scar was found 32% in patients of placenta praevia. This is supported by study conducted by Taylor VM & Kramar MD showing that women with the history of cesarean delivery are 50% more likely to have a subsequent birth complicated by placenta praevia¹².

Another study carried out in Nizwa hospital Oman in 2002 concluded that the history of previous abortion had

Table. Distribution of patients according to type of placenta praevia

Type of placenta praevia	I	II	III	IV
No. of patients	7	20	14	9
Percentage of patients	14	40	28	18

Fig. Complete praevia, marginal and low lying placenta



high odds of association with placenta praevia¹⁴. Another study carried out by Rakshan Shaheen Najmi at Ganga Ram hospital Lahore also shows increased number of placenta praevia in scarred uterus as compared to unscarred uterus¹³. Placentae that are originally implanted low in the uterus migrate away from the lower uterine segment with advancing pregnancy. This phenomenon fails to occur with a scarred lower uterine segment resulting in an increase frequency of placenta praevia. During the last two decades or so, the caesarean section rate has increased at an alarming pace all over the world. This has led to the emergence of various problems related with prior scars. The combination of placenta praevia and scarred uterus can prove quite detrimental to foeto-maternal health if not dealt with properly^{13,15}.

Another important aspect highlighted in this study was the danger of pathological placental adherence in cases having the combination of placenta praevia and scarred uterus. CME review article of 1998 "diagnosis and management of placenta praevia" shows that the higher rate of caesarean delivery today is strongly related to the greater frequency of placenta praevia and also placenta accreta, increta and percreta^{16,17,21}.

Another study concluded that the chance of anterior placenta praevia in a scarred uterus becoming placenta accreta should always be anticipated. While dealing with a case of placenta praevia in the presence of prior uterine scarring, the possibility of hysterectomy should be kept in mind. An increasing caesarean section rate may increase the number of caesarean hysterectomy performed for placenta accreta and increta^{13,22}.

Most of the patients (60%) were with major degree of placenta praevia i.e. type II, III and IV. This is also supported by study in Nizwa hospital Oman that shows a number of 72% cases with major degree of placenta praevia¹⁴.

Another incidental finding in this study was that majority of women (74%) were young between 20 to 30 years of age. It also shows that 54% of the patients were having their first or second pregnancy and 58% were having no previous delivery or one delivery. In contrast another

study carried out at Sir Ganga Ram Hospital Lahore in 2005 shows that 27% of patients with placenta praevia were >35 years age and 60.6% women with placenta praevia were gravida >5¹². Another study carried out in Jordan University of science and technology shows that placenta praevia is higher among gravida >4, para >3 and previous caesarean section and no increase in frequency of placenta praevia with increasing maternal age and previous abortion¹⁴. This was contradicted by our study which shows greater frequency in gravida 1, 2 and para 0, 1.

CONCLUSIONS

The frequency of placenta praevia increases with previously scarred uterus. Scarring of uterus should be kept under check by reducing the caesarean section rate, avoiding opening of uterine cavity during myomectomy and doing suction evacuation instead of curettage in abortions. The labour should be carefully monitored and caesarean section on social grounds should be discouraged.

Morbidity and mortality related with placenta praevia and pathological placental adherence can be curtailed by routine screening of the scarred obstetric population for placental localization at an appropriate gestational period. If the diagnosis of placenta praevia is confirmed then elective caesarean section should be done anticipating possible complications.

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Correspondence Address:

Dr. Saima Perveen
Gynae and Obst dept
Baqai Medical University Karachi
C/O Lt Col Ali Akhtar Khan
30MDC CMH Peshawar cantt
drsaima71@gmail.com

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