

Frequency of Placenta Previa in Patients with Repeated C-Section

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ABSTRACT

Objective: The purpose of this study is to determine the prevalence of placenta previa and adverse outcomes in patients with repeated C-sections.

Study Design: Descriptive/Observational study

Place and Duration: Gynaecology and Obstetrics Department, Combined Military Hospital, Peshawar for the period from February 2021 to January 2022.

Methods: There were 60 pregnant women had age 20-50 years were presented. Pregnant women with the history of c-section were included in this study. After getting informed written consent demographics of included patients i.e age, body mass index, gestational age, parity and gravidity were recorded. After delivery, association of placenta previa was recorded. Maternal and fetus outcomes were also assessed in this study. SPSS 21.0 was used to analyze all data.

Results: Majority of the cases 28 (46.7%) were aged between 20-30 years, 20 (33.3%) had age 31-40 years and 12 (20%) patients were aged between 41-50 years. 34 (56.7%) cases had BMI >25kg/m² and 26 (43.3%) patients had BMI <25kg/m². Mean parity of the patients was 4.7±3.21 and mean gestational age was 36.13±14.61 weeks. Frequency of placenta previa was found in 15 (25%) cases in which majority 9 (60%) were males and 6 (40%) were females. Among 15 cases of placenta previa, low apgar score, low birth weight and ICU admission were the adverse outcomes among new borns. In mothers, frequent bleeding, pre-eclampsia and gestational diabetes were the adverse events.

Conclusion: The results of this research led us to the conclusion that the prevalence of placenta previa rises with an increasing number of prior caesarean sections and the associated negative fetomaternal outcome.

Keywords: C-section, Placenta Previa, Adverse Events, Parity

INTRODUCTION

Both the woman and the infant may benefit from the lifesaving potential of caesarean section (CS). There has been a steady rise in the number of caesarean sections performed annually, and this trend poses a public health risk both in terms of the cost to the country's economy and the risk of problems for the mother and child. In the United States, the caesarean birth rate increased from 4.5% in 1965 to 31.8% in 2007 and is likely more than 50% at this time [1,2]. Studies [3, 4] conducted in 2008 found that the rate of caesarean births in Turkey has grown from 8% in 1993 (data from the Turkish Demographic and Health Study [TDHS]) to 37% in 2008. There are two major factors contributing to this rise: the rising number of primary caesareans and the rapidly falling rate of normal delivery following CS [1]. Medico-legal concerns have likely played a significant impact, although the precise cause of the rise in the prevalence of primary caesarean section is unclear.

The health of the mother and the baby, the timing of the delivery, the skill of the surgeon, the facilities at which the CS is performed, the surgical approach used, and the possibility of anaesthetic difficulties are all key contributors to the development of complications [4]. Worldwide, the number of caesarean sections performed each year is rising. The urge to have a large family combined with a lack of information about birth control is increasing the rate of caesarean sections, particularly in rural regions. Multiple CSs have been linked to increased maternal morbidity, although most of these studies have only looked at the impact of CS on specific complications such as placenta previa, urinary or bowel injury, and based on inter adhesions [5,6].

The risk of neonatal and maternal morbidity and death is elevated in women with placenta previa [7]. For cases of persistently adherent placenta previa (MAPP), accreta, increta, and percreta, this danger is amplified. In contrast to the well-established maternal danger associated with chronically adherent placenta previa [8,9], the prognosis of quasi preeclampsia in patients with a history of one or more caesarean sections of the lower uterine region is less well-studied (LUSCS).

Previous caesarean deliveries are associated with an increased risk of placenta previa, with some studies showing an increased risk of 3-10%[10]. Most studies show an increase in the incidence of cesarean delivery with increasing number of

caesareans; however, some studies show no increased risk.[11,12] Placenta previa causes significant mortality and morbidity. Antepartum and postpartum haemorrhaging, hysterectomy, blood transfusion, septicemia, and thrombophlebitis are all examples of problems for the mother, whereas greater rates of congenital abnormalities, perinatal death, and low Apgar scores are all examples of issues for the baby.[13]

Finding out how often placenta previa occurs in women was the focus of this research.

MATERIAL AND METHODS

This Descriptive/Observational study was conducted at Gynaecology and Obstetrics Department of Combined Military Hospital, Peshawar for the period from February 2021 to January 2022. The study comprised of 60 pregnant women. Women with primary gravid, did not have history of c-section, <20 years of age and those did not provide written consent were not included in this study.

Included patients were aged between 20-50 years. The placenta was localised using transabdominal ultrasonography when the patient had a full bladder. Placental edge that was 5 cm or less from the internal cervical os but did not reach the os was marked as Grade I. Placental edge that reached the os but did not cover the operating system was labelled as Grade II. Edge that covered the internal os partially or unevenly was labelled as Grade III. Placenta that covered the os evenly spaced or entirely was marked as Grade IV. Data were gathered through a proforma. The findings were reported as both a frequency and a percentage, and a Chi-square analysis was carried out to determine whether or not there was a significant difference in mean values at the 5% significance level.

RESULTS

We found that majority of the cases 28 (46.7%) were aged between 20-30 years, 20 (33.3%) had age 31-40 years and 12 (20%) patients were aged between 41-50 years.(figure 1)

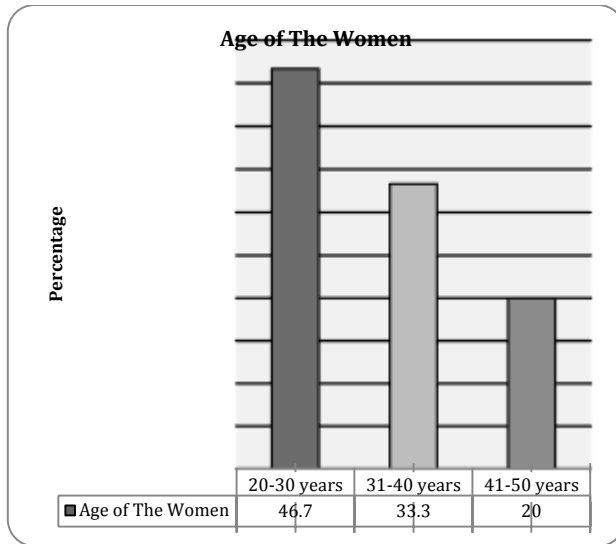


Figure-1: Pregnant women with age distribution

34 (56.7%) cases had BMI >25kg/m² and 26 (43.3%) patients had BMI <25kg/m². Mean parity of the patients was 4.7±3.21 and mean gestational age was 36.13±14.61 weeks. Frequency of illiterate was higher found in 35 (58.3%) cases. 37 (61.7%) patients were from rural areas.(table 1)

Table-1: Demographics of the presented cases

| Variables | Frequency | Percentage |
|------------------------------|--------------|------------|
| BMI | | |
| >25kg/m ² | 34 | 56.7 |
| <25kg/m ² | 26 | 43.3 |
| Mean Parity | 4.7±3.21 and | |
| Mean Gestational Age (weeks) | 36.13±14.61 | |
| Education Status | | |
| Yes | 25 | 41.7 |
| No | 35 | 58.3 |
| Area of Residence | | |
| Rural | 37 | 61.7 |
| Urban | 23 | 38.3 |

Frequency of placenta previa was found in 15 (25%) cases in which majority 9 (60%) were males and 6 (40%) were females.(table 2)

Table-2: Frequency of Placenta Previa among all cases

| Variables | Frequency | Percentage |
|------------------------|-----------|------------|
| Placenta Previa | | |
| Yes | 15 | 25 |
| No | 10 | 75 |
| Gender | | |
| Male | 9 | 60 |
| Female | 6 | 40 |

Among 15 cases of placenta previa, low apgar score, low birth weight and ICU admission were the adverse outcomes among new borns. In mothers, frequent bleeding, pre-eclampsia and gestational diabetes were the adverse events.(table 3)

Table-3: Fetomaternal adverse events among placenta previa cases

| Variables | Frequency (15) | Percentage |
|--------------------------|----------------|------------|
| Fetus Outcomes | | |
| low apgar score | 6 | 40 |
| low birth weight | 5 | 33.3 |
| ICU admission | 3 | 20 |
| Maternal Outcomes | | |
| bleeding | 7 | 46.7 |
| pre-eclampsia | 6 | 40 |
| gestational diabetes | 8 | 53.3 |

DISCUSSION

There is a considerable rise in the occurrence of placenta previa over the last two decades, mostly as a result of the increasing rate of caesarean sections performed all over the globe [14]. Placenta previa complicates 0.4% of all births. Concerns voiced on a global scale over this rise led the WHO to issue a statement on this matter [15]. In addition, there is abundant evidence that caesarean delivery is linked to a variety of negative health outcomes for both the mother and the infant [16].

Additionally, the risk of MAPP has grown as a consequence of an increase in the number of prior caesarean sections, which has led to an increase in the rate of both maternal and perinatal problems [17]. Previous researches [13-16] have placed a significant amount of emphasis on the connection that exists between CS and MAPP.

In current study 28 (46.7%) patients were aged between 20-30 years, 20 (33.3%) had age 31-40 years and 12 (20%) patients were aged between 41-50 years. 34 (56.7%) cases had BMI >25kg/m² and 26 (43.3%) patients had BMI <25kg/m². Results were comparable to the previous studies.[18,19] Compared to vaginal delivery and a first caesarean, having a caesarean more than once increases the risk of major mother and foetal problems [20]. But medico-legal considerations, improved caesarean dependability, and declining vaginal birth rates following CS all play significant roles in the present high CS rates. The high cost of CS, particularly in rich nations, is another major issue [21].

In current study, frequency of placenta previa was found in 15 (25%) cases in which majority 9 (60%) were males and 6 (40%) were females. Only a few studies have looked at whether or not additional risk variables may mitigate the impact of a prior CS on the likelihood of placenta previa. Women who conceived again within a year of their initial birth showed a 70% increase in CS's efficacy, according to a study conducted by researchers in Missouri[22]. In a cohort study with a lengthy 9-year follow-up period, the incidence of placenta previa among primiparas was determined to be 5.2 per 1,000 newborns. In the same study [23], researchers observed that the risks of placenta previa (OR, 1.4; 95% CI, 1.1-1.6) and placental abruption (OR, 1.3; 95% CI, 1.1-1.5), both of which favour caesarean delivery, increased with each subsequent birth. Placenta accreta is one of the most important morbidities in repeating cesarean births. The risk is reported to be associated with the increasing number of CSs, and especially with placenta previa located on the uterine anterior wall. The concurrence of placenta previa and placenta accreta was less than 24% in the second CS group, 40% in the third CS group, and over 60% with the fourth and more CS [24].

As a result, there are a lot of new babies being born in our area. Women quickly get pregnant again after CS because they are not adequately informed about the possible difficulties and owing to a dearth of information and education as well as associated societal causes. Indeed, this is a widespread issue throughout a great deal of the globe. In order to reduce the birthrate, it is important to teach people how to use contraception effectively. However, lowering maternal morbidity and mortality associated to recurrent CSs requires a significant reduction in the incidence of first CSs and the encouragement of patients and clinicians to choose vaginal delivery following CS.

CONCLUSION

The results of this research led us to the conclusion that the prevalence of placenta previa rises with an increasing number of prior caesarean sections and the associated negative fetomaternal outcome.

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