



Prevalence of Morbidly Adherent Placenta in Previous Scar

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Abstract

Background: Morbidly adherent placenta is life threatening complication that leads to increasing prevalence of C section. It leads to greater risks of maternal morbidity and death due to hemorrhage or caesarean delivery complications.

Objective: The aim of this study was to find out the Prevalence of morbidly adherent placenta in previous scar.

Materials and method: The current prospective study was completed at the department of Gynaecology and Obstetrics Pir Abdul Qadir Shah Jeelani institute of Medical Sciences Gambat from January 2024 to January 2025 after taking approval from ethical board of the institute. The sample size was determined through WHO calculator. A total of 216 individuals participated in this study. We recorded the type of MAP, number of previous scars, parity, and complications for all participants. SPSS Version 24 was used to analyze the data. For quantitative data, mean and standard deviation were computed, while for qualitative factors, frequencies and percentages were used.

Results: In our study we examined 216 individuals of different age groups, out of which 14.3% participants had morbidly adherent placenta. The most prevalent type of placenta was Placenta accreta 16 (7.4%). MAP was most common in age group 20-25 years old individuals (7.6%). The incidence of a single caesarean scar was 3 (1.3%), double was 5 (2.3%), and triple was 10 (4.6%), and fourth was 13 (6%). Complications seen in participants were substantial blood loss, bladder injury, reopening, and acute renal injury.

Conclusion: Our study concluded that MAP is a rare disorder that affects women with a history of previous scar. The Prevalence of morbidly adherent placenta in previous scar was 14%. The most common type of MAP was Placenta accreta.

Keywords: Morbidly adherent placenta; Previous scar; Placenta accreta

Introduction

Morbidly adherent placenta is characterized by abnormal placenta attachment to the surrounding uterine wall. It is a potentially fatal syndrome that causes significant hemorrhage during and after delivery.^{1,2} It is life threatening complication caesarean sections in previous pregnancy, have placenta previa, or have a history of endometrial lining injury are more susceptible.³ Based on the extent of



placental involvement and the degree of chorionic villi invasion, this aberrant placenta is divided into three types: placenta accreta, increta, and percreta. The type of classification is dependent on the myometrium, decidua basalis placental invasion, and serosal surface involvement of adjacent tissues such as the bladder and colon.^{4,5} A placenta that is morbidly adherent poses a serious risk to the pregnant woman and her upcoming baby, since it can cause a devastating blood loss that has been increasing for a number of reasons.^{6,7} Its successful therapy comprises of an engagement of a professional team with significant attention on the antenatal evaluation of the scenario & planning for the surgical treatment in expert hands. The majority experienced team should be accessible for these individuals.⁸ In a localized research, the incidence of morbidly adherent placenta in scarred uterus was reported to be 1.83/1000 deliveries, that significantly lower than documented in earlier studies i.e. 1/274.8 deliveries. Within such individuals 78 percent received hysterectomy. In another research the morbidly adherent placenta was observed in six percent situations.⁹ 80 % of incidents of adherent placenta were observed to conclude up in serious postpartum blood loss and seventy percent had peri partum hysterectomy.¹⁰ Another study on adherent placenta reported 28% postpartum bleeding.¹¹ The prevalence of myomectomy, hysterectomy, and caesarean sections is rising in Pakistan. Rare are studies conducted on their long-term maternal consequences. MAP is among these serious complications. Therefore the current study was carried out to determine the Prevalence of morbidly adherent placenta in previous scar.

Materials and method

The current prospective study was completed at the department of Gynaecology and Obstetrics Pir Abdul Qadir Shah Jeelani institute of Medical Sciences Gambat from January 2024 to January 2025 after taking approval from ethical board of the institute. The sample size was determined through Who calculator. A total of 216 individuals participated in this study. Females with gestational ages more than 26 weeks and had a history of previous surgeries, including as C-sections, myomectomy and associated placenta praevia were included while Individuals with a history of PID, IUCD insertion, placental abruption, dilatation and curettage, or primigravida were excluded. We recorded the kind of MAP, number of previous scars, parity, and complications for all participants. SPSS Version 24 was used to analyze the data. For quantitative data, mean and standard deviation were computed, while for qualitative factors, frequencies and percentages were used.

Results

In our study we examined 216 individuals of different age groups (mean age 6.12 years) out of which 31 (14.3%) participants had morbidly adherent placenta as represented in **figure 1**. Among these participants the most prevalent type of placenta was Placenta accreta 16 (7.4%) followed by placenta increta 8(3.7%) and placenta percreta 7(3.2%) respectively as presented in **figure 2**. Their age distribution revealed that MAP was most common in age group 20-25 years old individuals 16 (7.6%) followed by 35-40 age group 10(4.6%) as presented in **table 1**. The incidence of a single caesarean scar was 3 (1.3%), double was 5 (2.3%), and triple was 10 (4.6%), and fourth was 13 (6%), among the 31 individuals with morbidly adherent placentas as presented in **table 2**. Complications



seen in participants were substantial blood transfusion of more than 10 units of packed cells in 18 (8.3%) cases, bladder injury in 13 (6%), reopening in 7 (3.2%), and acute renal injury in 5 (2.3%) as presented in **table 3**.

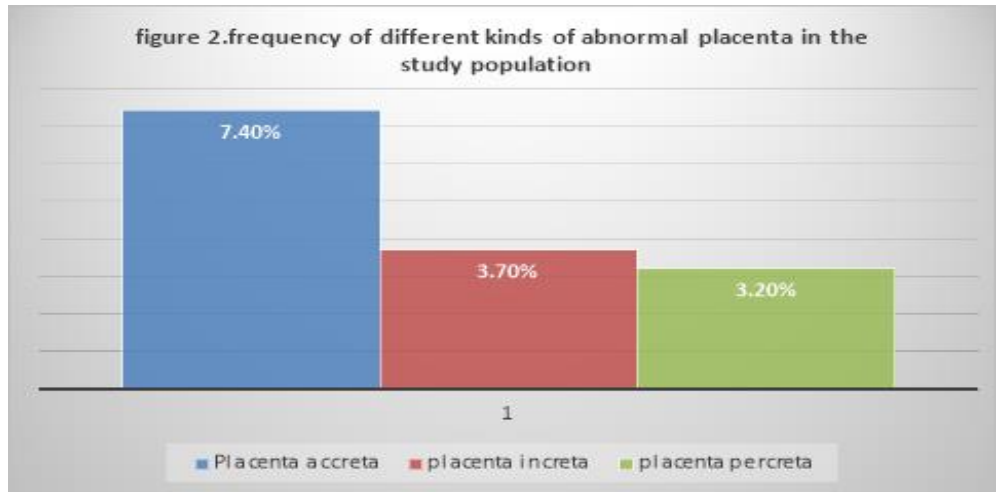
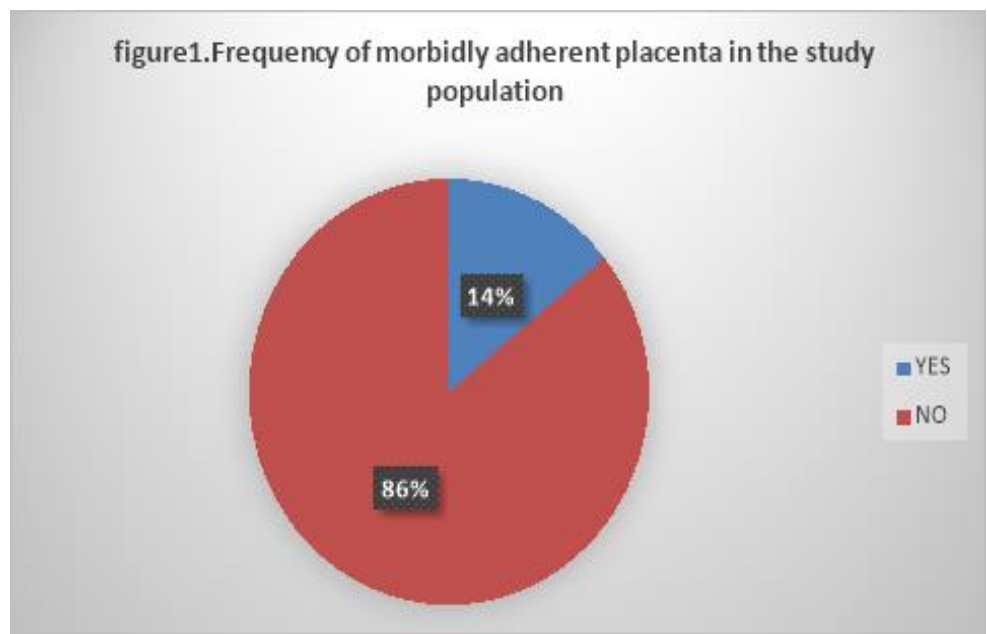


Table 1.Age wise distribution of the study populate with abnormal placenta n= 31	
Age in years	Frequency/ percentage
20 to 25	5(2.3%)
30 to 35	16(7.6%)
35 to 40	10(4.6%)

Table 2. Distribution of individuals depending on scar number n= 31



Scar number	Frequency/percentage
Single cesarean scar	3(1.3%)
Double	5(2.3%)
3 rd	10(4.6%)
4 th	13 (6%)

Table 3.Complications seen in female MAP patients	
Disorders	N(%)
Acute renal injury	5(2.3%)
Reopening	7(3.2%)
Bladder injury	13(6%)
Blood transfusion more than 10 units of packed cells	18(8.3%)

Discussion

Morbidly adherent placenta (MAP) refers to the attachment of placental tissue to the lower uterine segment instead of its normal site, decidua basilis. This condition is uncommon in Pakistan, with a prevalence of less than 1%. it leads to greater risks of maternal morbidity and death due to hemorrhage or caesarean delivery complications.¹² Research suggests that an increase in the frequency of caesarian sections worldwide is leading to an increase in the incidence of MAP.so the current study was carried out to fine out the incidence of MAP . In our study we examined 216 individuals of different age groups 14.3% participants had morbidly adherent placenta. Our study findings are similar to the previous study conducted by Ahmad et al.¹³ in which they documented 13% prevalence. But this rate is not similar to the results of the previous study.¹⁴ In the present study the most prevalent type of placenta was Placenta accreta 7.4% followed by placenta increta 3.7% and placenta percreta 73.2% respectively. Our study findings are somewhat similar to the study conducted by Nissa et al. They reported that the incidence of Placenta accreta vera was 1.5%. Placenta increta was 6.76%, whereas placenta percreta was 1.5%. Studies shows that an increase in the frequency of caesarian sections is leading to a rise in the incidence of MAP globally.¹⁶ Fresher scars may be a suitable site for MAP, while older scars may have undergone physiological changes that prevent the development of MAP. Further investigation is needed to explain this. The earliest ultrasound diagnosis of placenta accreta in a scar pregnancy occurred at 9 weeks.¹⁷ In our study MAP was most common in age group 20-25 years old individuals 7.6%). It is clear that morbidly adherent placentas generally occur in successive pregnancies, which explains the patients' older age and higher gravidity levels. The most



significant risk factors are previous caesarian delivery, placenta praevia, multiparity, and advanced maternal age. In the current study MAP was most common in age group 20-25 year's old individuals 7.6% followed by 35-40 age group 4.6%. The incidence of a single caesarean scar was 1.3%, double was 2.3%, and triple was 10 (4.6%), and fourth was 6%. It is clear that morbidly adherent placentas generally occur in successive pregnancies, which explains the patients' older age and higher gravidity levels. The most significant risk factors are previous caesarian delivery, placenta praevia, multiparity, and advanced maternal age.¹⁸ Major complication observed with MAP in the current study were blood loss, bladder injury, reopening, and acute renal injury. These results are similar to the previous studies. MAP is associated with greater risks of maternal morbidity and mortality due to bleeding and complications after caesarean procedures.¹⁹ When a placenta percreta exists, the bladder is the most commonly affected extrauterine organ. Placenta percreta invasion of the urinary bladder is linked with considerable morbidity and death of up to 10%.²⁰

Conclusion

Our study concluded that MAP is a rare disorder that affects women with a history of previous scar. The Prevalence of morbidly adherent placenta in previous scar was 14%. The most common type of MAP was Placenta accreta and the most common complication associated with it was substantial blood loss.

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