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PREVALENCE OF MORBIDLY ADHERENT PLACENTA IN PREVIOUS SCAR

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Prevalence; MAP; complications; Acute renal injury; Previous Scar.

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Abstract

Background: *A potentially lethal condition known as morbidly adherent placenta (MAP) is often linked to severe postpartum hemorrhage (PPH) and, in some situations, hysterectomy.*

Objective: *To determine the prevalence of Morbidly Adherent Placenta in Previous Scar*

Methodology: *This retrospective was carried out at the department of Obstetrics & Gynecology DHQ hospital lakki marwat. The study duration was one year from June 2023 to July 2024. A total of 200 patients were enrolled in our study by using WHO sample size calculator. All the data was collected in a specialized proforma designed for this study. The data was entered and analyzed using SPSS Version 24.*

Results: *In the current study, totally 200 patients were enrolled. The mean age (SD) was 27.99 (6.11) years. The incidence of MAP in our study was 26 (13%). Out of these 26 MAP patients, the incidence Placenta accreta was 14 (7%), placenta increta was 6 (3%) and placenta percreta was 6 (3%). Amongst the 26 MAP patients, the incidence of single cesarean scar was 2(1%), double was 4 (2%), thrice was 8 (4%) and fourth was 12 (6%).*

Conclusion: *Our study concludes that the prevalence of MAP was 13% in females with previous scars. MAP is an extremely rare disorder that is 10 times more common in women with a history of scar. Due to its shorter length and previously scarred uterus, placenta accreta was the most common kind of MAP.*

INTRODUCTION

A potentially lethal condition known as morbidly adherent placenta (MAP) is often linked to severe postpartum hemorrhage (PPH) and, in some situations, hysterectomy [1, 2]. Because the condition necessitates extensive surgical intervention, prolonged hospitalization, and intensive care unit admission, it results in considerable maternal morbidity and death as well as enormous economical expenses. As to the latest data provided by the CDC, 86.7% of women had a prior CS record, and 31.7% of births in the US were by CS. The CS rate increased to 31.7% from 20.7%. The most often reported consequence of a C-section birth is MAP in subsequent pregnancies; D&C and myomectomy are

other risk factors [3]. MAP is often identified in women after 28 weeks of pregnancy [4]. About 4.74 cases of MAP were reported for per 1000 live births in Pakistan [5]. Placental accrete, placental increta, and placental percereta are the three forms of MAP that are distinguished by whether the uterine wall is adherent to the inner or outer myometrium [6]. Placental accrete, which accounts for 75% of all MAP cases, may be identified early with color Doppler ultrasonography and may result in methotrexate medication or a cesarean hysterectomy [7]. B lood transfusions, urinary damage, and an increased risk of infection are among the worst morbidities associated with MAP [8]. The pregnant female and her fetus are at serious danger from a placenta that is morbidly adherent. There might be catastrophic outcomes if there is a significant blood loss. For a number of reasons, this problem has been growing [9, 10]. A professional team must work together to treat a MAP, with a focus on prenatal diagnosis and getting the patient ready for expert surgical care. The best crew should be on hand for these situations [11]. The prevalence of MAP in scarred uterus was found to be 1.83/1000 births in a local examination. This was less than the frequency of 1/274.8 deliveries reported in the previous study. 78% of these people had a hysterectomy. In one study, a MAP was seen in 6% of cases [12]. Bleeding, shock, and stomach ache are common complaints from patients. A medical emergency that raises the risk of morbidity in both the mother and the newborn is a MAP [13]. For MAP detection, color Doppler ultrasound has high sensitivity and specificity [14]. Methotrexate is a conservative treatment option. If the placenta cannot be removed from the uterine wall, cesarean hysterectomy is the second alternative. This procedure may cause serious complications for the mother, including ureteric damage, bleeding, hysterectomy, and D&C [15].

Materials and Methods

This retrospective was carried out at the department of Obstetrics & Gynecology DHQ hospital lakki marwat. The study duration was one year from June 2023 to July 2024. A total of 200 patients were enrolled in our study by using WHO sample size calculator. Placenta previa, myomectomy, hystrotomy, caesarean sections, and gestational ages more than 26 weeks were the inclusion criteria for our study. Patients who had previously had dilatation and curettage, placental abruption, IUCD insertion, pelvic inflammatory disorders (PID), or primigravida were not included. We documented each individual's kind of MAP, the number of prior scars, parity, and complications. The data was entered and analyzed using SPSS Version 24. Mean and standard deviation were calculated for quantitative data whereas frequency and percentages were used for qualitative factors.

Results

In the current study, totally 200 patients were enrolled. The mean age (SD) was 27.99 (6.11) years. The incidence of MAP in our study was 26 (13%). (Figure 1) Out of these 26 MAP patients, the incidence Placenta accreta was 14 (7%), placenta increta was 6 (3%) and placenta percreta was 6 (3%). (Figure 2) Their age wise distribution showed that 3 (1.5%) patients were in the age range of 20-25 years, 15 (7.5%) were 30-35 years old, and 8 (4%) patients were in age range of 35-40 years. (Figure 3) Amongst the 26 MAP patients, the incidence of single cesarean scar was 2(1%), double was 4 (2%), thrice was 8 (4%) and fourth was 12 (6%). (Figure 4) Based on complications, the massive blood transfusion of more than 10 units of packed cells was observed in 16 (8%) cases, bladder injury in 12 (6%), reopening 6 (3%), and acute renal injury in 4 (2%). (Table 1)

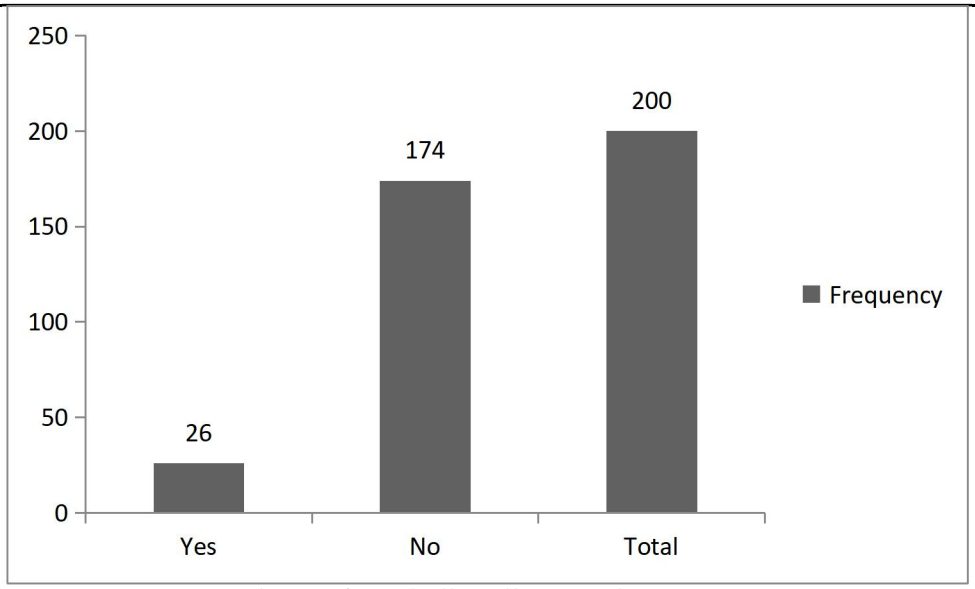

Figure 1: Prevalence of Morbidly Adherent Placenta in Previous Scar

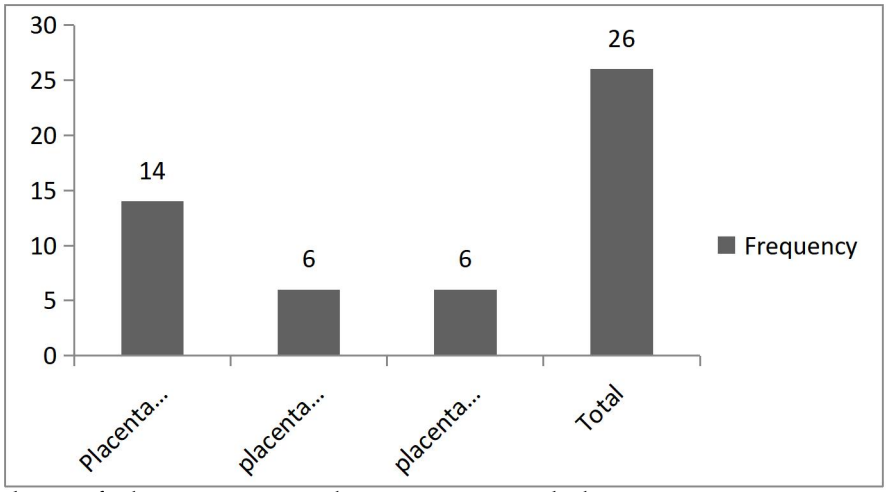

Figure 2: Incidence of Placenta accrete, placenta increta and placenta percreta amongst MAP females

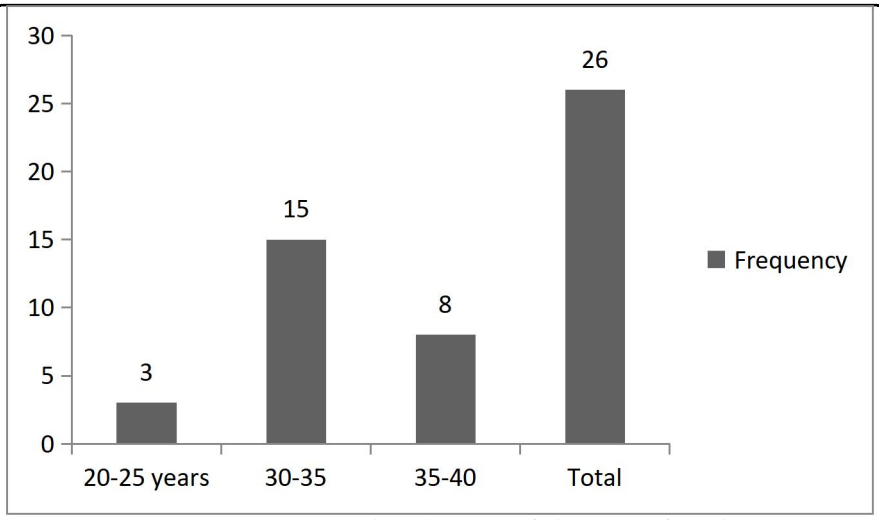

Figure 3: Age wise distribution of the MAP female

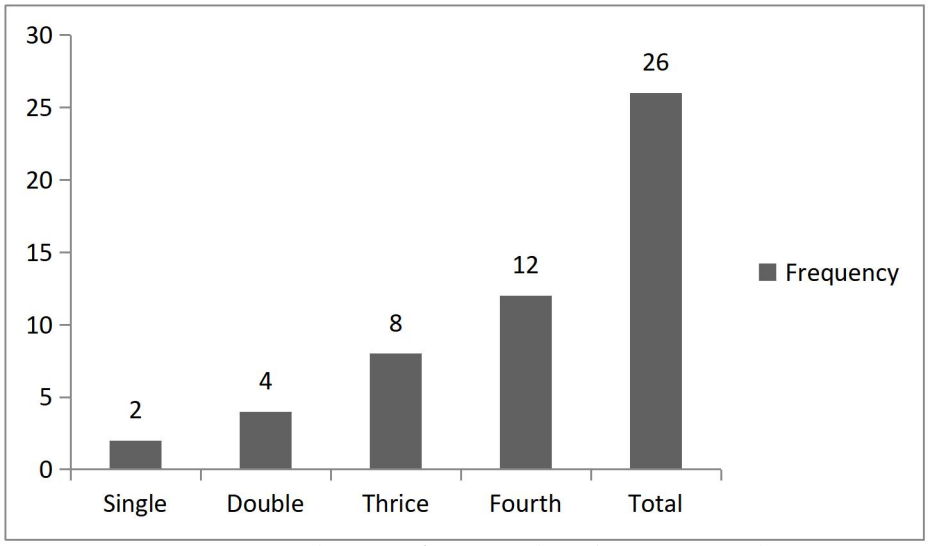

Figure 4: Distribution of patients based on scar number

Table 1: Complication observed in MAP females

Complications	Frequency (%)
blood transfusion >10 units of packed cells	16 (8%)
Bladder injury	12 (6%)
Reopening	6 (3%)
Acute renal injury	4 (2%)

Discussion

A potentially lethal condition known as morbidly adherent placenta (MAP) is often linked to severe postpartum hemorrhage (PPH) and, in some situations, hysterectomy [1, 2]. Because the condition necessitates extensive surgical intervention, prolonged hospitalization, and intensive care unit admission, it results in considerable maternal morbidity and death as well as enormous economical expenses. In the current study, totally 200 patients were enrolled. The mean age (SD) was 27.99 (6.11) years. The incidence of MAP in our study was 26 (13%). Out of these 26 MAP patients, the incidence Placenta accreta was 14 (7%), placenta increta was 6 (3%) and placenta percreta was 6 (3%).

Significantly higher rates of maternal morbidity and death from bleeding and complications from cesarean sections are linked to MAP [16]. Previous research shows that the prevalence of MAP is steadily rising as a result of more cesarean procedures [17, 18]. Women who have had a previous cesarean surgery have a 12.1% chance of developing placenta previa, and the risk rises as the number of prior caesarean sections increases. Grand multi-parity and a history of curettage are two more important risk variables that have been identified in the literature [19, 20]. A shorter scarring duration of up to two years was substantially correlated with the occurrence of MAP.

In order to prevent placental removal during the procedure, the surgical method is quick caesarean hysterectomy [21, 22]. If not, there is a significant chance of catastrophic bleeding after surgical treatment because of the rich collaterals and widespread neovascularization, which raises the hemostasis feasible efficiency with current methods [23]. While the treatment of high-risk patients is a special issue, some studies suggest that early detection of MAP might be accomplished efficiently by counseling and intervention at the earliest stages, preventing uterine loss or complications [24, 25]. Given the established risk factors for vacuum evacuation and pregnancy termination, the suspected MAP should be examined during the second trimester.

A placenta stuck to the previous scar from a cesarean section is dangerous and may have terrible outcomes. Due to its association with complications like bleeding during and after delivery, it has a substantial effect on the mother [26]. A mother's life may be saved by maintaining a high index of concern for placentas that are morbidly connected. By taking a medical history and doing an ultrasound, this helps with the diagnosis. Both color Doppler examination and greyscale ultrasonography are quite effective in forecasting placenta accreta sonographic patterns.

Poor placental adhesion is associated with uterine procedures, previous caesarean sections, IVF pregnancy, and increasing maternal age. There will most likely be fewer cases of MAP if these risk factors are avoided [27, 28]. A connection between placenta previa and cesarean sections was found by Richa et al. [29]. As more caesarean sections were done, the frequency of instances with incorrectly connected placentas rose. 39% of women who had previously had two caesarean sections developed placenta accreta, according to another study [30]. Additionally, it has been noted that around 75% of cases of MAP are seen in cases of placenta previa [31]. When placenta previa and previous cesarean sections are present, obstetricians need to be very suspicious about placenta accreta [32]. As the number of caesarean sections increases, more cases of placenta previa and poorly connected placenta are occurring. Placenta accreta was discovered in 27.27% of patients who had more than two C-sections, according to Chaudhari et al. [33]. Another conclusion is that the more cesarean sections done, the more poor placental adhesion there is. The same findings were seen in another study [34].

Conclusion

Our study concludes that the prevalence of MAP was 13% in females with previous scars. MAP is an extremely rare disorder that is 10 times more common in women with a history of scar. Due to its shorter length and previously scarred uterus, placenta accreta was the most common kind of MAP.

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