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MORBIDLY ADHERENT PLACENTA AT TERTIARY CARE CENTER

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ABSTRACT

Background: Morbidly adherent placenta is one of the most feared complications causing high morbidity and mortality in obstetrics. An increase the incidence caesarean section over the recent years which leads to adherent placenta. Identification of patients with risk factors antenatal period is essential for the early diagnosis and management. The objective of the study was to evaluate the risk factors, different modes of management, maternal and perinatal outcome in case of morbidly adherent placenta. **Method:** This is a descriptive case series study. This study comprises patients who had morbidly adherent placenta, admitted at Department Obstetrics and Gynaecology, Civil Hospital, Ahmedabad from October 2021 to March 2022. **Results:** A total of 10 cases of morbidly adherent placenta were studied over 6 months span at our institute. The most common aetiology of morbidly adherent placenta was previous caesarean section with placenta praevia. Total abdominal hysterectomy done in most of the cases. There was 1 maternal death noted in this study. **Conclusion:** Morbidly adherent placenta (MAP) is one of main the cause of maternal morbidity and mortality. There are more number of previous caesarean section and placenta previa are major risk factors for morbidly adherent placenta. There is main step to reduce maternal morbidity and mortality are reduce the percentage of primary caesarean section, early antenatal diagnosis, planned surgery with multidisciplinary experts.

KEYWORDS : Morbidly adherent placenta, Previous caesarean section, Placenta previa, Obstetrics hysterectomy.

INTRODUCTION

The term placenta accreta spectrum (PAS) describes aberrant placentation characterized by abnormally implantation, invasive, or adhered placenta. It is also referred to as the morbidly adherent placenta, and in Europe it is referred to as a pernicious placenta previa with accreta and abnormally adherent placenta[1].There are 3 types: Placenta Accreta in which tissue invades the decidual surface of the myometrium; Placenta Increta: in which the placental villi invade more deeply within the myometrium, Placenta Percreta: where chorionic villi penetrate through the uterine serosa and may invade surrounding organs such as the bladder[2]. Women with one or more prior caesarean deliveries are at greater risk for subsequent placental disorders that include placenta previa, placental abruption, or placenta accreta spectrum (PAS)[3].

The incidence of Morbidly adherent placenta has increased, because of increase caesarean section in past years. At present, Placenta accreta spectrum (PAS) disorders have become a significant life-threatening obstetrical issue due to its increased incidence from 0.12 to 0.31% in the last 30 years and the reported mortality rate of approximately 7.0%[4]. According to the American college of Obstetrics and Gynecology the incidence of placenta accreta was 1:2500 per delivery[5]. Morbidly adherent placenta is associated with major complication like postpartum haemorrhage, massive blood transfusion, obstetric hysterectomy, acute kidney injury, disseminated intravascular coagulation, ARDS[5]. Postpartum haemorrhage from morbidly adherent placenta is the most common indication of obstetrics hysterectomy and massive haemorrhage is one of the leading cause for maternal death. Rising Caesarean section rate and short interval between caesarean section and placenta previa are major contributing factors for MAP[6,7] .

For prevention of maternal morbidity and mortality, there are colour doppler,3D ultrasound scanning and MRI for diagnosis and management at tertiary care centre with multidisciplinary approach. Different modes of management are like: Conservative treatment with preservation uterus (uterine packing), subtotal hysterectomy, total abdominal hysterectomy, with or without Bladder repair. In case of life-threatening condition obstetric hysterectomy remain mainstay of massive haemorrhage with multidisciplinary experts.

METHODS

A prospective study on 10 patients of morbidly adherent placenta over a period ranging for 6 months (October 2021 to March 2022) admitted in civil hospital Ahmedabad was done.

Patients were studied and data collected for descriptive case series study.

Detailed history of patients with related predisposing risk factors, previous caesarean section, previous intrauterine procedure (myomectomy, dilation and evacuation, manual removal of placenta), need of management like placenta in situ in view of conservation of uterus, obstetrics hysterectomy, massive blood transfusion, ICU stay evaluated.

RESULTS

A total 10 patients with adherent placenta were included in this study.

Table 1: Demographic Distribution of MAP

	Number	Percentage
Gravida Status		
Primi	00	00%
Gravida 2	04	40%
Gravida 3	02	20%
Gravida 4	02	20%
Gravida 5	00	00%
Maternal age		
20-25 years	03	30%
26-30 years	04	30%
30-35 years	03	40%
Booking status		
Booked	04	40%
Un-booked	06	60%
Residence		
Rural	06	60%
Urban	04	40%
Gestational age at delivery		
<36 weeks	02	20%

36-38 weeks	05	50%
>38 weeks	03	30%

In this study, table study shows that MAP is seen multipara and 40% cases seen with age of 30-35 years followed by 30% cases of 20-25 years and 20% cases with 26-30 years.

A study by 27.27% of patients in the study belonged to age group 25-27 years and 40.9% were above 31 years of age. [8]

In this study, 40% cases are booked patients and rest are presenting in emergency. In this study 60% cases came from rural area and 40% cases came from urban setup.

The average gestational age at delivery was 36 to 38 weeks in 60%

Table 2: Risk Factor Associated with MAP

Risk factors	Percentage
Previous 1 C section	20%
Previous 2 C section	30%
Previous 3 C section	30%
Previous C section with placenta previa	80%
Previous C section without placenta previa	20%
Only curettage	10%
Previous C section with curettage	10%

Table 1 shows that the most common predisposing risk factors for MAP was placenta previa with previous caesarean section (80%). Cases of MAP increase with increasing number of previous CS like 17.6% cases in previous 1 CS, 29.4% cases in previous 2 CS and 35.3% cases in previous 3 CS[4].In the study by Rizvi SM et al, 80% cases of previous CS and 20% cases seen with history of curettage[9]. There were 6 patients diagnosed as MAP in antenatal period with radiological investigation, and others diagnosed during surgery and confirmed by histopathology.

In this study, 10% cases had only curettage while 10% cases had previous CS with curettage. There is previous c section with curettage also leads to adherent placenta. As well recognised risk factor foe MAP are as follows: Prior uterine surgery with breach of endometrium and implantation of the placenta over surgical scar.[2]

In this study 20% cases had dilatation and curettage. Bencaiova G et al reported significant association of previous uterine intervention in the form of D and C, uterine surgery other than C-section with adherent placenta.[10]

Table 3: Modes of Management

Modes of management	Percentage
Total hysterectomy	70%
Subtotal hysterectomy	20%
Conservative management	10%

In this study, Obstetrics hysterectomy done in 70% of patients. Conservative management done in one patient with preservation of uterus which is results into total hysterectomy due to massive blood loss and 2 cases had subtotal hysterectomy.

Table 4: Morbidity and Mortality Associated with MAP

Characteristics	Percentage
Hysterectomy	90%
Blood transfusion	80%
ICU stay	60%
Bladder injury	24%
AKI/DIC	32%
Sepsis	30%
Death	01%

So many maternal morbidity seen with MAP. In this study, massive blood transfusion given to the patient (80%) who underwent obstetrics hysterectomy.

Most common and major complication was bladder injury (24%) while operating as most cases were of previous caesarean section with adherent placenta at scar and bladder is nearest organ to susceptible to injury.60% patients intensive care unit postoperatively with one mortality. Atonic PPH leads to obstetrics hysterectomy and AKI/DIC occurred. As there is preoperatively diagnosed by USG/MRI, obstetric hysterectomy was explained with ICU stay. In intra operative findings, atonic PPH leads to emergency obstetric hysterectomy.

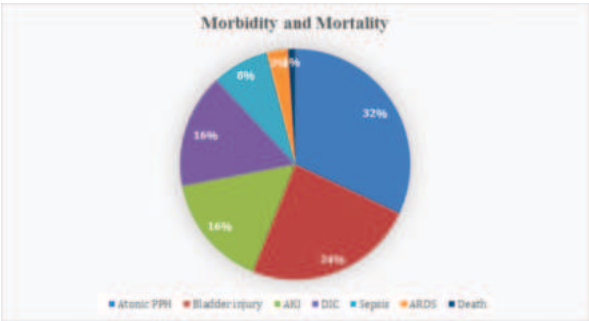

Figure 1: Morbidity Associated with MAP

Figure 2: Histopathological Co-relation

In this study, placenta accreta was found in 60% cases, placenta increta was found in 30% cases and placenta was found in 10% cases.

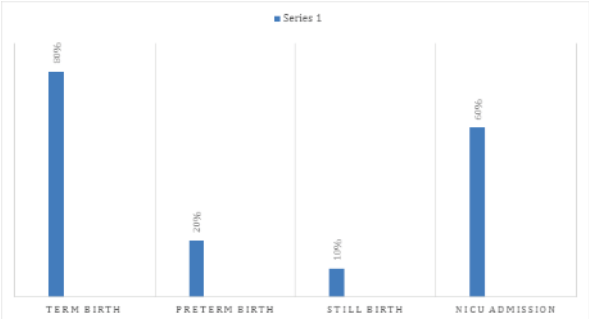

Figure 3: Neonatal Outcome

In this study, 80% of patients had live births, 10% had stillbirth and 20% of the babies were preterm.

60% of the babies required NICU admission at birth for respiratory distress/ prematurity or low birth weight. perinatal mortality rate was 30%. RDS is leading cause of neonatal death followed by sepsis.

DISCUSSION

The placenta accreta spectrum has become an important contributor to severe maternal morbidity. The true incidence is difficult to ascertain, but likely falls near 1/1000 deliveries[11]. Morbidly adherent placenta is life threatening condition and required multidisciplinary expertise. Morbidly adherent placenta covers which implies an abnormal implantation of the placenta into the uterine wall and is one of the most devastating complications in pregnancy. The most frequently

involved extrauterine organ in placenta percreta is the bladder and it is associated with increased morbidity and mortality. Advanced maternal age and multiparity, reported risk factors include any condition resulting previous caesarean section, endometrial defects due to vigorous curettage leads to adherent placenta. In this study, as well as studies by Aggarwal et al [12] and Obajimi et al [13], it is evident that morbidly adherent placenta usually occurs in subsequent pregnancies, explaining the older age group and higher gravidity of the patients. The most important risk factors in this study were history of previous caesarean section with placenta previa. The most common aetiology of morbidly adherent placenta was previous caesarean scar with placenta previa (85%).[14]

In this study, 40% cases are diagnosed as MAP in antenatal period through Ultrasound and MRI. Colour flow Doppler is the gold standard in diagnosing morbidly adherent placenta. MRI was more accurate in diagnosis of posterior and lateral location of placenta and also in focal accreta. Women with an anterior located placenta or placenta previa overlying a uterine scar should be evaluated for the potential diagnosis of morbidly adherent placenta.

Given the best-available evidence, optimal time for delivery is believed to be between 34 and 35 weeks in most cases[15]. The average gestational age at delivery was 36 to 38 weeks in our study. The RCOG recommends planned delivery around 36-37 weeks of gestation with corticosteroid cover is a reasonable compromise. However, surgical management of placenta may be individualised.[5].In this study, 70% cases had obstetrics hysterectomy and 20% cases had subtotal hysterectomy.

Massive blood loss is become life threatening condition while operating emergency obstetrics hysterectomy. There are 80% cases needs massive blood transfusion Intraoperatively major complication is massive blood loss followed by bladder injury (24%) and AKI/DIC (32%) with mortality of 10%. The recommended management for MAP is obstetrics hysterectomy which leads to major morbidity and mortality of the patient causes long ICU stay. In this study, 60% cases had long ICU stay which is major morbidity of PAS. Postoperative complications of placenta accreta include DIC, fistula formation, ureteric stricture, urinary stasis, infection, pelvic and renal abscess formation, renal compromise, transfusion reaction, sepsis, ARDS, multiorgan damage.[16]

Successful management of this condition requires antenatal diagnosis and referral to a tertiary care centre where multidisciplinary expertise, blood transfusion facilities and intensive care units are available.

CONCLUSION

The incidence of placenta accreta has increased dramatically over the last three decades, in concert with the increase in caesarean delivery rate. In conclusion, early antenatal diagnosis of morbidly adherent placenta, prophylactic corticosteroids, elective surgery around 37 weeks planned surgery at well-equipped centre with multidisciplinary expertise, blood transfusion, Intensive care units helps to reduce the maternal and neonatal morbidity and mortality. There is PAS associated with previous C section and placenta previa. Diagnosis of morbidly adherent placenta through imaging (ultrasound colour Doppler and MRI) allows for multidisciplinary planning. MAP is cause of long ICU stay with multiple blood transfusion that leads to excessive consumption of hospital resources which is well managed at tertiary care center.

REFERENCES

1. Williams Obstetrics: 26th edition. PAS (page 759-766)
2. Arias' practical guide to high risk pregnancy and delivery. Antepartum haemorrahge,5th edition.
3. Gibbins KJ, Einerson BD, Varner MI, et al: Placenta previa an maternal hemorrhagic morbi ity. J Matern Fetal Neonatal Me 31(4):494, 2018
4. Zhang D, Siqin Y, Yanyan H, Yan S, Haofan S, Wei G. Risk factors, outcome and management survey of PAS disorders in 153 cases: a five-year experience from a hospital of Shanghai, China. Int J Clin Exp Med. 2017; 10(8):12509–16.
5. Committee Opinion No. 529. American College of Obstetricians and Gynecologists. Placenta accreta. Obstet Gynecol. 2012;120:207-11.
6. Armstrong CA, Harding S, Mathews T. Is placenta accrete catching up with us? Aust N Z J Obstet Gynaecol. 2004;44:181-3.
7. Usta IM Hobeika EM, Musa AA. placenta Previa-accreta; risk factors and complications. Am J Obstet Gynecol. 2005;193:1045-9.
8. Morbidly adherent placenta: incidence,risk factorsand management,Dr Sonam jadhav,Dr Saloni pugalia, International journal of scientific research:Volume-9|Issue-6|June 2020.
9. Rizvi SM, Fayaz F.Demographic profile and high risk factors in Morbidly adherent placenta. Int J Reprod contracept Obstet Gynecol 2016;5:1617-20
10. Bencaiova G, Burkhardt T, Beinder E. Abnormal placental invasion experience at 1 center. J Reprod Med. 2007;52(8):709-14.
11. Carusi, Daniela A. (2018). The Placenta Accreta Spectrum: Epidemiology and Risk Factors. Clinical Obstetrics and Gynecology, 61(4), 733-742.
12. Aggarwal R., Suneja A., Vaid N.B., et al (2012). Morbidly adherent placenta: a critical review. J ObstetGynaecol India.;62(1):57–61.
13. Obajimi G.O., Roberts A.O., Aimakhu C.O., et al (2009). An appraisal of retained placentae in ibadan: a five year review. Postgrad. Med.;7(1), 21–25.
14. Vora K,Chandana P,Patel A,Jain M.A prospective study of 20 cases of maternal outcome in morbidly adherent placenta in tertiary care hospital.Int J Reprod Contracept Obstet Gynecol 2017;6:571-4.
15. Garmi G.,Salim R.,(2012). Epidemiology,etiology,diagnosis, and management of placenta accreta.ObstetGynaecolInt: 873-979.
16. LeenaWadhwa, Sangeeta Gupta, Prathibha Gupta, et al (2013). Morbidly adherent placenta (MAP): lessons Learnt. Open journal of Obstetrics and gynaecology 3, 217- 221.