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Research Article

Morbidly Adherent Placenta-A Recently Emerging Menace

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Abstract:

Introduction: Placenta accreta once a rare occurrence is now becoming anincreasingly common complication of pregnancy mainly due to increasing rate of caesarean deliveries.

Aims and Objectives: To determine the incidence,causes. Risk factors of increasing rate of placenta accreta and to evaluate its outcome.

Material and Methods: It is a prospective study of patients presenting to department of OBG,Govt. Medical College,Patiala between 1-2-2016 to 31-7-2017(one and half year study).All patients with morbid adherent placenta were included.

Results: The incidence of placenta accreta in our study is 1 in 630,majority of which are associated with previous LSCS and placenta previa.Thus we identify that the major risk factors for placenta accreta are increasing order of prior caesarean deliveries and coexixting placenta previa.

Conclusion: In our study with proper anticipation,analysis and antenatal assessment we made prenatal diagnosis of placenta accreta in majority of the cases,this provided us a golden opportunity to make a planned multidisciplinary team approach for its management to achieve minimal mortality and acceptable morbidity.Hence antenatal diagnosis of the condition gives us preparedness.

Keywords: Morbidly Adherent Placenta ,Peripartum Hysterectomy

INTRODUCTION

The incidence of morbidly adherent placenta has increased dramatically over the last three decades,in concert with increase in caesarean delivery rate.Its incidence is drastically increasing from 1 in 4027 pregnancies in 1970 to 1 in 2510 pregnancies in 1980 ,to 1 in 533 pregnancies in 2002.[(1)]According to ACOG incidence of placenta accreta is 1 per 2500 deliveries.It occurs when there is a defect in deciduas basalis ,resulting in abnormally invasive placentation of the placenta[(2)].Prior uterine surgery,myomectomy and curettage in addition to caesarean section have all been associated with abnormal placentation ,but more ominously placenta previa has been associated with a high rate of placenta accreta[{3}].

The maternal mortality rate for India as per World Bank data in 2015 is 174 per 100000 live births.The maternal mortality risk may reach 7% in morbid adherent placenta.The extensive surgery related morbidities includemassive transfusions,urologic injuries,infections and fistula formation[{4}].Optimal management of women with placenta accreta involves early recognition of high risk women based on clinical risk factors,accurate preoperative diagnosis,detailed maternal counselling and meticulous planning at the time of delivery.

Placenta accreta is diagnosed mostly in antenatal period by using Doppler ultrasound[(5,6)]but still may be diagnosed in the third stage of labour or at caesarean section,when placenta

fails to separate partially or completely.

Rationale of my study is to determine the demographic profile,high risk factors ,maternofetal outcome and management options in women of morbid adherent placenta at our centre.

Demographic data including age,parity,gestational age and previous caesarean delivery,medical and obstetrics history and intraoperative and post-operative events were recorded.In particular blood transfusion ,presence of placenta accreta, procedures needed to control bleeding were recorded.Neonatal outcomes were reviewed for APGAR score, birth weight,,nursery admission,.nursery stay and perinatal mortality.

AIMS AND OBJECTIVES

To determine

1) The incidence and causes of increasing rate of morbid adherent placenta.
2) To evaluate its risk factors and outcome

MATERIAL AND METHODS

It was a prospective one and a half year study period of morbid adherent placenta from 1 Feb 2016 to 31 July 2017 in Govt.Medical College Patiala.

INCLUSION CRITERIA

1)Cases delivered by caesarean section followed by hysterectomy due to morbid adherent placenta.

2) Cases of retained placenta

MAP was defined clinically or histopathologically by one of the following

(a) Heavy bleeding from implantation site after forced/piecemeal removal of placenta at caesarean section or vaginal delivery.
(b) Manual removal of placenta partially or totally impossible: no cleavage plane between placenta and uterus.
(c) Histopathological confirmation on a hysterectomy specimen

Demographic data including age,parity,gestational age and previous cesarean delivery or other uterine surgery ,details of medical and obstetric history and information on the intraoperative and postoperative events , placental location,estimated blood loss,blood transfusion,presence of placenta previa.

Data Tabulation

Total no. of deliveries=5678

Total no. of LSCS =2272

Total no. of vaginal deliveries =4901

placentaprevia=137

Total no. of Morbid Adherent Placenta=9

Placenta .accreta=5

Pacental.percreta=4

Incidence of Morbid Adherent Placenta =0.15%

TABLE:1

DEMOGRAPHIC PROFILE

Mean age	28.5 years
Mean parity	2.5
Booked women	10%
Previous1LSCS	56%
Previous 2LSCS	11%
Previous LSCS+history of curettage	22%
Placenta previa	80%
No risk factors	11%

The mean age of women was 28.5 years.Most of the women were multiparous.10% of the women were booked with our institution.5 women (67%) had previous cesarean sections,2 women (22%) had undergone prior curettage and caesarean section also.Placenta previa was associated in 80% women.

8 of the 9 women (82.2%) presented antenatally.1 women (11%) presented postdelivery with retained placenta.7 women presented with antepartum haemorrhage and 1 women had asymptomatic placenta .

A provisional diagnosis of placenta accreta was made preoperatively on ultrasonography in 7 women.2 had peroperative diagnosis.

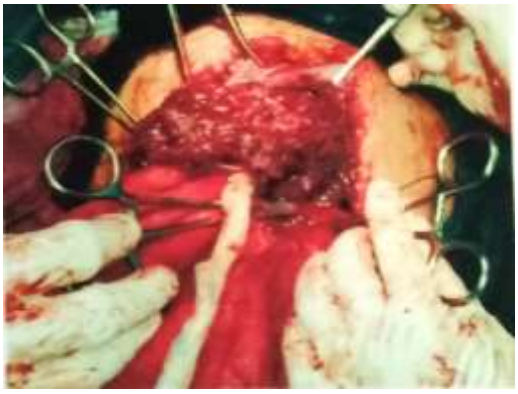
TABLE 2

PRESENTATION	NUMBER
Placenta Previa	7
Asymptomatic	1
Retained Placenta	1

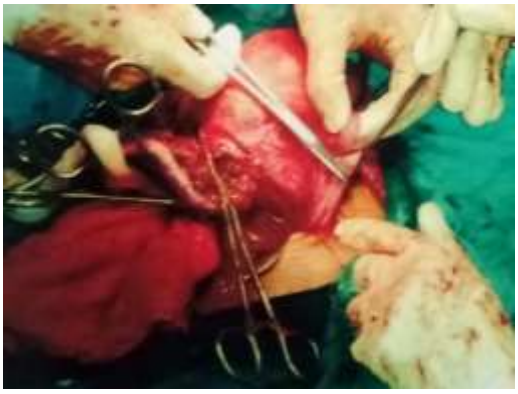
Majority of cases were electively timed at 35- 37 weeks.As according to RCOG guidelines elective hysterectomy to be performed if the accreta is confirmed,we did the same for all our confirmed cases of morbid adherent placenta.[10]

TABLE 3 THERAPEUTIC INTERVENTION

Hysterectomy	Methotrexate	Cesarean hysterectomy+bladder repair
8	1	4



Intraoperative Picture of morbidly adherent placenta



Ceasarean Hysterectomy being performed in placenta accreta

A provisional diagnosis of placenta accreta was made preoperatively on ultrasonography in 6 women.2had a per operative diagnosis .6 women were taken up for surgery electively and 2 were operated on emergency basis.

Classical cesarean section followed by total abdominal hysterectomy with placenta in situ was done in 6 women who

had a preoperative diagnosis of placenta accretaa.2 women had to be operated on emergency basis and were diagnosed as case of placenta accreta during cesarean and total hysterectomy was done.

Medical management with methotrexate was given to 1 women,who presented post-deliverywith retained placenta.USG with Doppler showed retention of complete placenta with evidence of placenta accreta.She was given inj methotrexate 1 mg/kg i/m and was closely followed up with serial sonography and beta-hcg.prophylactic antibiotics were given.The woman was discharged after 2 weeks with the residual placenta still in situ.Serial usg scan showed progressive degeneration of placenta and the woman continued to pass small pieces of placental tissue and blood for few weeks.3 months later she resumed normal menses and usg showed an empty uterine cavity.

Massive blood loss was the prominent feature in all women .On an average 5-9 units of packed blood with other blood components were transfused.Bladder was injured during dissectionin 4 women due to bladder involvement by percreta and bladder repair was done.44.44 % of the women had to be shifted to ICU with an average stay of 2-3 days.The maternal death rate was 1(11.11%) in our study..

TABLE: 4 MATERNAL OUTCOME

Average transfusion	5-9 units
Bladder injury&repair	4
ICU transfer	4
Average ICU stay	2-3 days
Maternal death	1

TABLE: 5 NEONATAL OUTCOME

Mean Gestational age	35-37 weeks
Preterm	66.6%
Term	33.3%
Perinatal mortality	11.11%

The major neonatal complications was prematurity.66.6% were preterm.The perinatal mortality was 11.11%.

DISCUSSION

In 2002 ACOG estimated the incidence of placenta accreta has increased 10 fold over the past 50 years.This increasing rate is in parallel to increase in caesarean rate .From our study we identify that Placenta previa and previous cesarean section are the two most important risk factors for placenta accreta.

Miller et al reported a risk of 14% in women of placenta previa with previous cesarean section and curettage the risk increases with number of previous cesarean sections.[7.]

Prior uterine surgery-80% of our patients are previous caesarean section .In a study done by Kathryn E.Fitzpatrick et al the estimated incidence of placenta accreta was 1.7 per 10,000 maternities overall,577 per 10,000 in women with both a previous caesarean delivery and placenta previa.[8]

All our patients were multiparous similar to study done by Farhat nasreen which showed cases of abnormal placentation is 7 times higher in multiparous when compared to Primipara.[7]

Currently the management options for MAP include conservative and extirpative approaches[8].The conservative surgery includes leaving the placenta in situ which may be followed by uterine artery embolization,internal iliac artery ligation and conservative approach[9].However risk of sepsis and delayed hemorrhage is also incurred.

The extirpative approach consists of immediate cesarean hysterectomy and avoiding placental removal during operation.

Medical management with methotrexate was given to one postpartum woman in the present study.

The woman morbidity in our study is primarily related to extensive surgery,infections, massive blood transfusion,and urologic injury.

Maternal mortality in our study is 11%.which is comparable to the rate of 7-10% as quoted in literature. In this patient diagnosis of adherent placenta was made only peroperatively.This is a significant finding emphasizing the role ofhigh index of suspicion in women with known risk factors and a meticulous USG examination for accurate preoperative diagnosis.

The mortality of the woman with a preoperative diagnosis was preventable and classical caesarean section without separating the placenta could have saved the woman.

CONCLUSION

From our study we conclude that the risk of placenta accreta/increta/percreta appears to be raised in women who have a previous caesarean delivery,currettage and placenta previa.Hence there is a need to maintain a high index of suspicion of abnormal placentation in such women and preparation in such women,diagnosis and preparation for delivery should be made accordingly.

Through our study we demonstrated that by electively performing peripartumhysterectomy it is possible to significantly reduce morbidity and mortality.

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