CASE REPORT

Conservative management of placenta increta in a primigravida: A case report

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Abstract

Morbidly adherent placenta in the absence of risk factors is a rare entity in primigravida, and its conservative management becomes important in such patients to preserve future fertility.

We report a case where a primigravida was discovered accidentally having placenta increta while her caesarean section was being performed due to foetal distress (grade 2 meconium). There was unexpected delay in delivery of the placenta. It was managed conservatively by performing a bilateral uterine artery ligation and methotrexate post operatively. On weekly follow-ups serum beta Human Chorionic Gonadotropin(bHCG) levels were done as well as and two weekly ultrasounds. Conservative management of morbidly adherent placenta can be considered in primigravidas where there is a great need to preserve fertility and avoid hysterectomy.

Keywords: Conservative management, Morbidly adherent placenta

Introduction

The incidence of morbidly adherent placenta increases with the number of caesarean sections performed. Risk of morbidly adherent placenta is 1 in 200 to 400 deliveries in the USA and 1 in 800 deliveries in the United Kingdom.[1] Risk of morbidly adherent placenta without previous caesarean section is 0.01% and thus it is a rare entity in primigravidas. Other risk factors may include previous history of manual removal of placenta, sub-mucosal myomectomy and previous history of uterine curettage.

Morbidly adherent placenta are of three types: placenta accreta, increta and percreta. There is an increasing incidence of morbidly adherent placenta worldwide possibly due to rising incidences of caesarean section. It has its own consequences such as, risk of a life-threatening haemorrhage, maternal morbidity and loss of fertility as a result of hysterectomy.[2] Thus conservative management of morbidly adherent placenta has a role where fertility is to be preserved and there is no uncontrollable haemorrhaging. Nowadays there is gradual shift towards conservative management of morbidly adherent placenta for the conservation of the uterus with the aid of intervention radiology and chemotherapeutic agents like methotrexate.[3]

A case was reported where a primigravida was diagnosed having placenta accrete during caesarean section and was conservatively managed with success.

Case Report

In July 2017, Mrs. ABC, 25 years of age, married for one year, and a primigravida was booked at 36 weeks of gestation at the Lady Aitchison Hospital, Lahore. Her baseline investigations were normal, and her obstetrical ultrasound showed a single live foetus corresponding to the gestational age with adequate amount of liquor, and the placenta was fundal with no evidence of myometrial invasion.

At 38 weeks of gestation she was presented in emergency with labour pains after which she was admitted in the hospital. Findings revealed her cervix had dilated 3 cm, 80% effaced with intact membranes. Her Cardiotocogram(CTG) showed variable decelerations, Artificial Rupture of Membranes was done and there was grade 2 meconium. An emergency caesarean section was decided and she was shifted to the operation theatre. Her pre-operative haemoglobin was 13.2 gm/dl and Total Leukocyte count(TLC) was 8 x 103 /uL while her other investigations were found normal. After induction of general anaesthesia, routine procedure of caesarean section was performed and the baby was delivered in cephalic presentation, weighing 3.5 kg with good Apgar score. There was an unexpected delay in the delivery of placenta. After waiting for 30 minutes, 10 units of oxytocin were given in the umbilical cord. The surgeon again tried to deliver the placenta but no plane of cleavage was identified. The uterus was then exteriorised and the placenta was found to be invading the myometrium at fundus, sparing only serosa of uterus (Figure).

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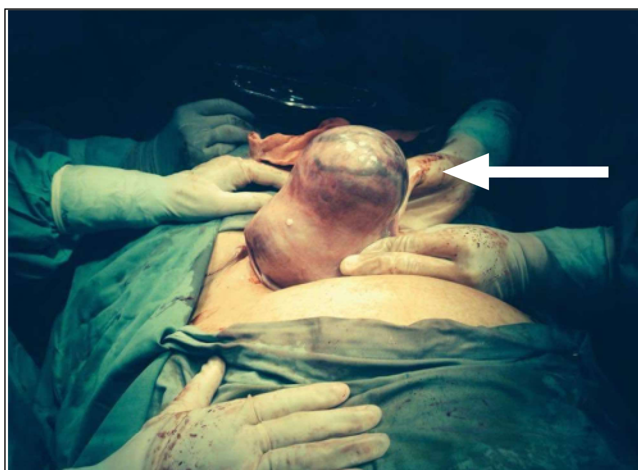

Figure: Morbidly adherent placenta.

The attendants were consulted over the critical situation who made arrangements for blood. Management options were also discussed including the need for a Caesarean hysterectomy in case of massive haemorrhaging, to save the life of the young mother, but the family was reluctant.

The approximate blood loss in surgery was 1 litre and the vitals of the patient were as follows: pulse 98/min, BP 110/70 mmHg, oxygen saturation was 100%, urine output was 200 ml from the start of surgery. Bilateral uterine artery ligation was done, approximate blood loss uptil then was 1 litre and her vitals were stable. A vaginal examination showed there was not much bleeding. The uterus was closed in layers. The attendants consulted once again and as the patient was stable, a conservative management was planned for her. However, if any problem such as a haemorrhage or infection emerged during the course of her treatment, we had decided on an emergency hysterectomy. Her abdomen was closed in layers. At the end of surgery, vitals of patient were as follows: pulse 98/min, Blood Pressure 100/70 mmHg, urine output was 400ml and the vaginal bleeding was mild. The patient was shifted to intensive care unit after surgery, where her vitals, urine output and vaginal bleeding were continuously monitored. Her Complete Blood Count (CBC), Liver Function Tests(LFT) and Renal Function Tests(RFT) reports came back normal, so an injection of methotrexate was given 6 hours after the surgery. Also a third generation Intravenous antibiotic and ciprofloxacin was given during post-operative period.

The patient remained stable with pulse range of 90-96/min, Blood Pressure 100/70 - 120/70 mmHg, respiratory rate of 14-16/min, temperature of 98°F, urine output was 2300 ml in the first 24 hours after which she was shifted to her room.

On the first post-operative day, 22nd July 2017, her vitals were checked every 2 hours. Urine output was monitored, vaginal bleeding was noted, her fundal height was 22 weeks, TLC was 7.4 x 10^3/ μL and the patient continued to remain stable.

On the second post-operative day, we recommended CBC and bHCG and reports showed her CBC was within normal range and bHCG was 9021 mIU/ml. The patient remained admitted in the hospital for four days after which she was discharged with the following advice: Her temperature to be monitored twice daily. If there was a rise in temperature, the patient was to immediately inform the doctor. Monitor for vaginal bleeding and to immediately contact doctor if there was heavy bleeding. Weekly CBC and bHCG tests to be done for the first 4 weeks.

Ultrasounds to be done twice weekly.

Third generation intravenous antibiotic was to be continued to avoid sepsis.

Weekly visits to the doctor was advised.

On the patient's next follow up visit on 31st July 2017, her vitals were stable and her investigations were reviewed.

A second dose of methotrexate was given the following day, on 1st August 2017.

Intravenous antibiotics were continued for another 3 weeks to avoid sepsis.

A third dose of methotrexate was given on 15th August 2017.

Her TLC remained normal throughout her visits, and her bHCG normalised by 23rd September 2017. An ultrasound on 22nd December 2017 showed no retained piece of placenta and thus a conservative management of placenta increta was deemed successful as of that day.

Discussion

Conservative management of morbidly adherent placenta is defined as all the procedures or strategies that aim to avoid peripartum hysterectomy and its related morbidity and consequences. Main goals of this

management include:

1. Decreasing the risk of maternal morbidity which includes blood loss, risk of transfusion, coagulopathy, operative injuries like bladder and ureter injury.
2. To preserve fertility.[4]

Four types of conservative management can be done for morbidly adherent placenta:

1. Extirpative treatment (manual removal of placenta).
2. Expectant management or leaving placenta in situ.
3. One step conservative surgery (removal of accrete area).
4. Triple - P procedure (suturing around accrete area after resection).[5]

Conservative management of morbidly adherent placenta is possible in certain circumstances where there is no risk of a life threatening haemorrhage; the patient is willing to go through a prolonged follow-up and thoroughly understands the complications that may occur during follow-up, including the need for a hysterectomy. In this case report, the placenta was left in situ and no attempt was made to separate it, which minimises the risk of haemorrhage, and the uterus was closed. Bilateral uterine artery ligation was done to further minimise the risk of any haemorrhage. The role of methotrexate followed in the conservative management of morbidly adherent placenta is not clear and is not routinely recommended for every patient.[6] During follow-up, serum bHCG should be done on a weekly basis to ensure its falling level. An ultrasound should also be done as recommended to check whether the remains of the placenta has resolved or not. Falling bHCG alone is not a guarantee for complete resolution of placenta and it can only be assured by an ultrasound.[7]

Conclusion

Morbidly adherent placenta can occur in primigravidas and a conservative management can be successful, provided the clinician has full knowledge of all the measures that are to be taken in time. For its successful outcome, the involvement of the patient herself and her family is very important at every step.

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