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Case Report

Early diagnosis of placenta accreta in case of mid trimester postabortal haemorrhage with previous 3 cesarean sections

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ABSTRACT

Aim: To know the risk and management of postabortal haemorrhage in patients with previous caesarean delivery to prevent maternal mortality.

Background: Placenta accreta is an emergency life threatening obstetric situation may also complicate first trimester and midtrimester abortion and encountered as profuse vaginal bleeding and difficulty in placenta removal at delivery. The incidence of placenta accreta increased from 1 in 30,000 pregnancies in 1960 to 1 in 533 pregnancies in 2000. Placenta accreta developed in 55 of 590 women with placenta previa and 7 of 156080 without placenta previa. Increased incidence of caesarean increases the incidence of placenta accreta. Multiple caesarean deliveries are largest risk factor for placenta accreta. On the basis of a high risk factor, suspected case of placenta accreta spectrum, must be diagnose and be in charge of a multidisciplinary team with better maternal and fetal outcome.

Case Presentation: A 36 years old patient, P3L3A1 had prior 3 LSCS with retained placenta with profuse bleeding per vaginum with history of expulsion of fetus (18 week) on the way to hospital, presented to labor room. Patient was unbooked and uninvestigated. Initial resuscitation done along with oxytocic given but no sign of placental separation was there and bleeding was continued. On the basis of torrential bleeding and history of previous three caesarean deliveries, patient is immediately shifted to the operation theatre for exploratory laparotomy in view or provisional diagnosis of a morbidly adherent placenta with torrential haemorrhage. On laparotomy, the anterior surface of lower uterine segment of uterus accompanied by numbers of engorged blood vessels. Bladder was spared. Decision of exploratory laparotomy taken into consideration of morbidly adherent placenta, and procedure was ended with Subtotal hysterectomy, haemostasis achieved. 2 units PCV transfused intraoperatively and patient was shifted to intensive care unit for observation postoperatively. Her postoperative duration was uneventful; she got discharged on postoperative day6 under satisfactory condition. The specimen was sent for histopathological examination.

Conclusion: Vigilant monitoring and timely intervention in obstetric emergencies can avoid maternal mortality.

Clinical Significance: We wish to highlight the vigilant monitoring and timely decision, active collaboration by multidisciplinary team improve outcomes in patient of postabortal haemorrhage in midtrimester with previous caesarean delivery with placenta accreta spectrum.

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1. Introduction

Placenta accreta is a complication of pregnancy can be associated with maternal mortality. During development of placenta, trophoblastic invasion occur beyond nitabuch

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layer (fibrinoid layer), depend on depth of placental invasion, it classify as into placenta accreta vera (placenta abut to the myometrium without breaching), placenta increta (placenta invade subtotally within the myometrium), and placenta percreta(fully invasion inside the myometrium, inclusive of perforation beyond the uterine serosa).[1,2] Placenta accreta frequently manifests as excessive vaginal bleeding and difficulty releasing the placenta during the third stage of labor, very rarely mid trimester pregnancy termination, may lead to profuse postabortal haemorrhage. Approximately 3000 to 5000ml of blood loss occur during delivery of women with placenta accrete.[3]

Incidence of placenta accreta spectrum has been reported 1 in 2500–7000 pregnancies.[4] For women with placenta previa, the risk of placenta accreta increases as 3% with first caesarean, 11% with second caesarean, 40% with third caesarean, 61% with fourth caesarean, and 67% with fifth or more.[5,6] The ultrasound and MRI have similar accuracy in diagnosis of PAS. Final diagnosis is confirmed by histopathology examination. Laparoscopic or Abdominal hysterectomy is the treatment for placenta accreta diagnosed in first trimester abortion. Early diagnosis, quick decision, timely intervention can manage this emergent condition with favourable outcomes.

2. Case Report

A 36 years old patient P3L3A1 with history of prior 3 LSCS with retained placenta with profuse bleeding per vaginum with history of expulsion of fetus (18 week) on the way to hospital, presented to labor room. Patient was unbooked and uninvestigated. She had a history of bleeding per vaginum in her antenatal period. On general examination, PR -118/ min, BP- 90 / 60mm, saturation 98% at room air. There is no pallor, no icterus, no cyanosis, no clubbing, no pedal oedema. On per abdominal examination- uterus not well contracted, below umbilicus, on per vaginum examination- os open, placenta in situ, torrential bleeding per vaginum present. Initial resuscitation done along with oxytocic given but no sign of placental separation was there and bleeding was continued. On the basis of torrential bleeding and history of previous three caesarean deliveries, patient is immediately shifted to the operation theatre for exploratory laparotomy in view or provisional diagnosis of a morbidly adherent placenta with torrential haemorrhage.

2.1. *Intraoperative finding*

Anterior surface of lower uterine segment of uterus fully covered with engorged blood vessels.(Figure 1) Bladder was spared. Decision of subtotal laparotomy taken in view of morbidly adherent placenta. Subtotal hysterectomy was done, haemostasis achieved. 2 unit PCV transfused intraoperatively and patient shifted to ICU postoperatively. She was recovered well and discharged on postoperative day (pod) 6 under satisfactory condition. The specimen was sent for histopathological examination.

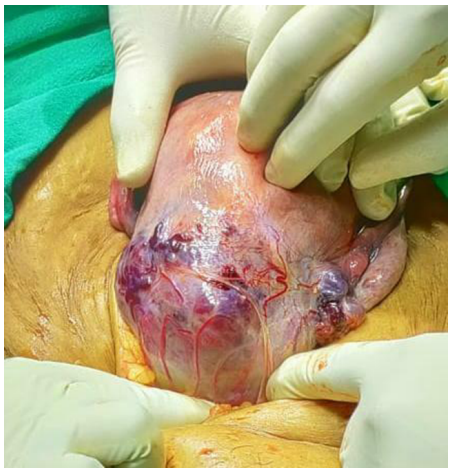

Fig. 1: Lower uterine segment covered with engorged vessel

2.2. *Cut sections*

Placenta is implanted at the lower uterine segment, adherent to the uterine wall.(Figures 2 and 3)

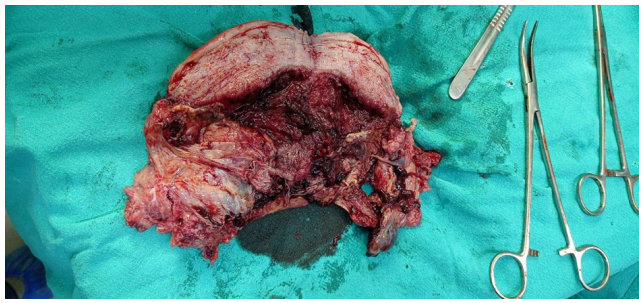

Fig. 2: First image of cut section of uterus with adhere placenta

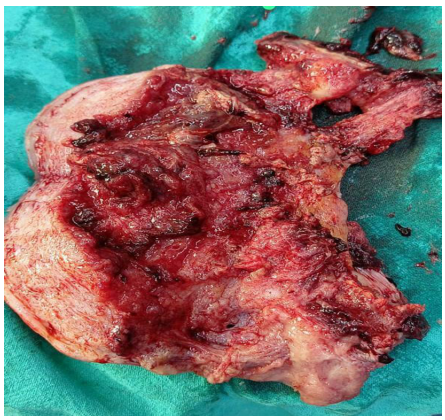

Fig. 3: Second image of cut section of uterus with adhere placenta

Table 1: Recommendations regarding management of placenta accrete spectrum

Recommendations	Resource setting	Strength and Quality of evidence of recommendation
For women who want to save their fertility, leaving the placenta in place and agreeing to long-term continuous follow up in centres with adequate expertise is an option.	High	Strong and Moderate
The difficult manual removal of the placenta should be omitted.	All	Strong and high
If a conservative treatment is attempted in cases of Placenta accrete spectrum disorders diagnosed antenatally, preoperative ultrasound should be confirmed the proper location of the placenta and the experienced surgical team and equipment should be ready for an emergency hysterectomy.	High	Strong and Moderate
After delivery of the baby, and only in cases with no clinical evidence of invasive placenta accrete spectrum disorders, the surgeon may carefully attempt to remove the placenta by the use of uterotonics and controlled cord traction	All	Strong and low
Postop. Antibiotic therapy (clindamycin or amoxicillin and clavulanic acid in case of penicillin allergy) should be administered prophylactically to minimize the infection risk when the placenta is left in situ.	High	Weak and low
There is no recommendation of use of methotrexate until further evidence is available on its efficacy and safety	High	Strong and Moderate
There is no recommendation to do Preventive surgical or radiological uterine devascularisation.	High	Weak and low
MRI and serum β -hCG are used to monitor conservative management cases, is insufficient evidence to recommend.	High	Weak and low
High risk of recurrence of PAS disorders should be advised to women who want another pregnancy.	All	Strong and high
The hemostasis efficacy is operator dependent, making one-step conservative surgery less reproducible than other conservative management approaches.	High	Weak and low

2.3. Histopathological examination

An enlarged specimen of uterus of 9x8x6cm with adherent placenta in the lower segments section taken from upper segment of uterus show endometrium lined by secretory endometrium with decidualization and few trophoblastic cells. Myometrium shows hypertrophy with Congested blood vessels and oedema, Section from adherent placenta show Chorionic villi adherent to the myometrium however it is not invading the myometrium. Suggestive of Pregnancy related Changes in Uterus with placenta accreta.

3. Discussion

Placenta accreta spectrum (PAS), earlier known as morbidly adherent placenta. Women with one previous cesarean section, rate of placenta accreta increased from 0.3% to 6.77% for women with ≥5 cesarean deliveries.[7,8] Women, who has placenta previa, the risk of placenta accreta increases as 3% with first cesarean, 11% with second cesarean, 40% with third cesarean, 61% with fourth cesarean, and 67% with fift or more.[6] Anyone case of Placenta previa associated with 2 to 5% risk of placenta accreta. For antenatal diagnosis of placenta accreta, primary modality is obstetrics ultrasound. There is 93% negative predictive value and 77% positive predictive value of ultrasound, described by Finberg et al.[9] specificity and sensitivity of MRI in accuracy for placenta accreta spectrum prediction is 84.2% (95% CI, 76.0–89.8) and 94.6% (95% CI, 85.0–97.8) respectively, which is rationally good.[10] Antenatal diagnosis of placenta accreta spectrum is considered crucial because it provides the time to plan management for improved outcomes, reducing the utilisation of resources like ICU stay and blood bank. Optimal management requires a systematic approach by an interdisciplinary integrative care team to manage the placenta accreta. The high risk group for placenta accreta spectrum should be screened in antenatal visit to avoid grave complications. Antepartum diagnosis can preserve fertility by conservative management to some extent. Methotrexate adjuvant treatment, Leaving the placenta in situ approach, preventive radiological and surgical uterine devascularization, systemic hysteroscopy resection of retained placenta, one step conservative surgery approach, triple –P procedure are method of conservative treatment of placenta accreta syndrome.

There are recommendations of conservative management of PAS (placenta accreta spectrum) disorder (Table 1)[11]

Our case is suspected as placenta Previa with placenta accreta on the basis of torrential haemorrhage with retained placenta and previous 3 cesarean deliveries and diagnosis of

placenta accreta is confirmed by histopathology reports.

4. Conclusion

The postabortal haemorrhage can be potential critical emergency conditions for patient and decision-making situation for obstetrician that associated with maternal mortality and morbidity. Hysterectomy remains common procedure for placenta accreta spectrum but early identification and quick decision and timely intervention can save a life. This case highlights need for early diagnosis of placental accreta spectrum and to prevent the risk of massive haemorrhage.

5. Source of Funding

None.

6. Conflict of Interest

None.

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