ORIGINAL RESEARCH PAPER
Volume - 15 | Issue - 05 | May - 2026 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

SILENT ACCRETA, SUDDEN RUPTURE: A MATERNAL NEAR-MISS.

Obstetrics & Gynaecology

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ABSTRACT

Placenta accreta spectrum (PAS) is an increasingly encountered obstetric complication in India, largely due to rising caesarean section rates. Its association with placenta previa and previous caesarean delivery significantly increases maternal morbidity and mortality. Uterine rupture in the second trimester in such cases is rare and life-threatening. We report a case of a 36-year-old gravida 2 para 1 living 1 with previous lower segment caesarean section, presenting at 26.6 weeks gestation with placenta previa and ultrasonographically diagnosed placenta accreta. The patient developed sudden haemodynamic collapse due to uterine rupture prior to planned surgical intervention. Emergency laparotomy revealed haemoperitoneum with fetus in the abdominal cavity and morbidly adherent placenta. A life-saving obstetric hysterectomy was performed with massive transfusion and inotropic support. This case highlights the catastrophic potential of PAS disorders and underscores the need for early diagnosis, preparedness for massive obstetric hemorrhage, and prompt multidisciplinary management in tertiary care settings.

KEYWORDS

Placenta accreta spectrum, uterine rupture, obstetric hysterectomy, placenta previa, maternal near-miss

INTRODUCTION

Placenta accreta spectrum (PAS) disorders represent a continuum of abnormal placental adherence, ranging from placenta accreta to increta and percreta, and are a major contributor to severe obstetric hemorrhage worldwide. In India, the rising incidence of caesarean deliveries has significantly increased the prevalence of PAS, with studies reporting a strong association between previous caesarean section and placenta previa as major risk factors.[1,2]

PAS is associated with significant maternal morbidity including massive hemorrhage, disseminated intravascular coagulation, need for hysterectomy, and intensive care admission.[3] Although uterine rupture is more commonly seen in the third trimester or during labor, its occurrence in the second trimester, especially in association with PAS, is rare and often catastrophic.[4] We present a maternal near-miss case of second trimester uterine rupture in a patient with placenta accreta spectrum and previous caesarean section, managed successfully at a tertiary care center in Maharashtra.

CASE REPORT

A 36-year-old woman, gravida 2 para 1 living 1, at 26 weeks and 6 days of gestation, with a history of one previous lower segment caesarean section performed six years prior for fetal distress, presented to Government Medical College & Hospital, Chhatrapati Sambhajinagar, Maharashtra, with complaints of acute onset abdominal pain. There was no history of vaginal bleeding, leaking per vaginum, trauma, fever, or other systemic complaints. Her antenatal course had been uneventful until the current episode. She had no significant medical comorbidities & her menstrual cycles prior to conception were regular.

On admission, the patient was conscious, afebrile, and moderately built, with clinical pallor. Her pulse rate was 110 beats per minute and blood pressure was 100/60 mmHg.Cardiovascular and respiratory examinations were unremarkable. Per abdominal examination revealed a uterus corresponding to 26–28 weeks gestation with variable fetal presentation and fetal heart sounds present at 144 beats per minute. The uterus was relaxed; however, scar tenderness was present. Per speculum examination showed no vaginal bleeding, and per vaginal examination was deferred due to suspicion of placenta previa.

Initial laboratory investigations revealed hemoglobin of 11 g/dL, total leukocyte count of 8400/mm^3, and platelet count of 2.16 lakh/mm^3. In anticipation of hemorrhagic complications, blood products were arranged as per massive transfusion protocol.

Urgent ultrasonography suggested placenta previa with features consistent with placenta accreta spectrum. A diagnosis of gravida 2 para 1 living 1 at 26.6 weeks gestation with previous caesarean section complicated by placenta previa with placenta accreta was made, and the patient was planned for emergency surgical intervention with preparedness for obstetric hysterectomy.

However, during preparation for transfer to the operating theatre, the patient suddenly developed vomiting followed by rapid clinical deterioration. She became hemodynamically unstable, with pulse rate increasing to 140 beats per minute (feeble) and blood pressure dropping to 70/30 mmHg, along with worsening pallor. Abdominal examination revealed distension with easily palpable fetal parts and loss of fetal station. Fetal heart sounds were absent.

Immediate resuscitation was initiated with intravenous crystalloids and inotropic support using noradrenaline infusion. Foley catheterization revealed hematuria with urine output of approximately 10 mL. A clinical diagnosis of uterine rupture was made, and the patient was shifted emergently to the operating theatre.

On arrival in the operating theatre, she remained in shock, with blood pressure of 80/40 mmHg despite inotropic support, necessitating escalation of noradrenaline infusion. Blood transfusion was initiated intraoperatively. Emergency laparotomy was performed under general anaesthesia via a midline vertical incision. Approximately 1 liter of hemoperitoneum was encountered. The fetus was found lying free in the abdominal cavity. The placenta was morbidly adherent to the lower uterine segment, with extensive vascularity and thinning of the myometrium, consistent with placenta accreta spectrum.

In view of uncontrolled hemorrhage and hemodynamic instability, a decision was made to proceed with emergency obstetric hysterectomy. The procedure was carried out with simultaneous aggressive resuscitation. Intraoperatively, the patient received 3 units of packed red blood cells, 4 units of fresh frozen plasma, and 4 units of random donor platelets. Hemostasis was achieved, and an intraperitoneal drain was placed. Following hysterectomy, the patient's blood pressure improved to 100/70 mmHg under continued inotropic support.

Postoperatively, the patient was shifted to the intensive care unit in an intubated state. Her postoperative hemoglobin was 8.4 g/dL. She received an additional 1 unit of packed red blood cells on the day of surgery and 1 more unit on postoperative day 3 for persistent anaemia and tachycardia. She remained on ventilatory support for 18 hours and required gradual tapering of inotropic support. She was extubated on postoperative day 2. Urine output improved to adequate levels, and haematuria resolved.

By postoperative day 3, she was haemodynamically stable without inotropic support. Her tachycardia improved following blood transfusion. Laboratory parameters showed hemoglobin of 8.4 g/dL, total leukocyte count of 13,000/mm³, and platelet count of 2.14 lakh/mm³, with normal coagulation and biochemical profiles. The patient showed steadyclinical improvement, with no further complications. The intraperitoneal drain output decreased progressively. Sutures were removed on postoperative day 12, and she was discharged in stable condition.

DISCUSSION

The present case highlights an uncommon and severe clinical presentation of placenta accreta spectrum (PAS), wherein the disease manifested as spontaneous uterine rupture in the second trimester. While the association of PAS with prior caesarean delivery and placenta previa is well established, the progression to early uterine rupture remains rare and clinically challenging.[5,6]

The mechanism underlying uterine rupture in PAS is attributed to progressive trophoblastic invasion leading to marked thinning and weakening of the myometrium, particularly at the site of a previous caesarean scar. In such cases, the structural integrity of the uterine wall is compromised, predisposing to rupture even in the absence of labor or trauma.[7] The intraoperative findings in this patient, including extensive vascularity and thinning of the lower uterine segment, support this pathophysiological basis.

Clinically, early uterine rupture poses a diagnostic challenge, as symptoms may initially be nonspecific. However, sudden hemodynamic instability, abdominal distension, and loss of fetal heart activity should raise immediate suspicion, especially in high-risk patients. Similar presentations have been described in recent Indian reports, emphasizing the need for heightened clinical vigilance in patients with known or suspected PAS.[8,9]

Although antenatal imaging plays a crucial role in identifying PAS, its utility is limited in acute settings where rapid deterioration necessitates immediate intervention. In such scenarios, management decisions are primarily clinical and time-sensitive. The rapid transition from a stable condition to hypovolemic shock in this case underscores the unpredictable nature of PAS-related complications.

Management of PAS complicated by uterine rupture requires prompt surgical intervention. Emergency obstetric hysterectomy remains the definitive life-saving procedure in cases with uncontrolled hemorrhage and hemodynamic instability. Evidence from Indian tertiary care centers indicates that hysterectomy is frequently required in emergency presentations of PAS, particularly when diagnosis is made intraoperatively.[3] Conservative management is rarely feasible under such circumstances.

The requirement of multiple blood product transfusions in this case reflects the severity of hemorrhage associated with PAS and uterine rupture. Adherence to established obstetric hemorrhage protocols, including timely availability of blood components and coordinated multidisciplinary care, is critical in improving maternal outcomes.[1] This case also fulfils the criteria for maternal near-miss as per Government of India guidelines, given the presence of shock, need for massive transfusion, emergency hysterectomy, and intensive care support.[10] Analysis of such cases is essential for strengthening institutional preparedness and improving response to obstetric emergencies.

Overall, this case emphasizes that PAS can present with sudden, life-threatening complications even in the second trimester. Early risk identification, close monitoring, and readiness for emergency surgical management are crucial to reducing maternal morbidity and mortality in such high-risk pregnancies.

CONCLUSION

Placenta accreta spectrum associated with placenta previa and previous caesarean section can lead to catastrophic complications such as uterine rupture even in the second trimester. Early diagnosis, high index of suspicion, and preparedness for massive hemorrhage are essential. Timely surgical intervention and multidisciplinary management are critical in reducing maternal morbidity and mortality.

Figure 1- Ultrasonographic image showing placenta previa with features suggestive of placenta accreta spectrum.

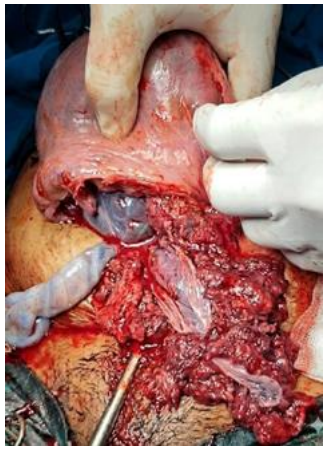

Figure 2- Intraoperative image

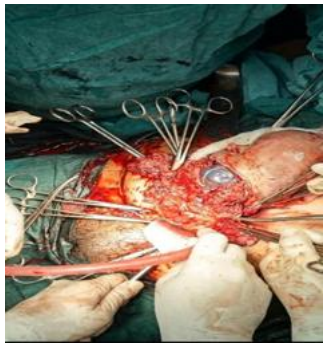

Figure 3- Intraoperative image

Figure 4- Resected uterine specimen following emergency obstetric hysterectomy.

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