

## CASE REPORT

### Obstetrics

# Focal placenta percreta mimicking subserous fibroid presenting as massive reactionary hemorrhage following cesarean delivery: A case report

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### Abstract

**Background:** Reactionary hemorrhage is a severe complication of a cesarean section (CS) that may result from uterine atony, retained placental tissue, or ligature slippage. This case presents a rare cause of reactionary hemorrhage due to focal placenta invasion after CS presenting as hemoperitoneum.

**Case presentation:** A 32-year gravida 2 para 1 presented to the outpatient department at 39 gestational weeks. She was scheduled for elective CS and bilateral tubectomy given previous CS and cephalopelvic disproportion. Her antenatal routine ultrasound was unremarkable. Eight hours later, she was scheduled for an emergency relaparotomy for intraabdominal collection. Intraoperatively, there was

bleeding from a focal placental invasion at the left cornua with omentum covering the placental mass and massive hemoperitoneum. She was transfused with 4, 4, and 6 units of packed cells, platelets, and fresh frozen plasma, respectively, and was discharged home.

**Conclusion:** Focal placenta percreta may present with hypotension and massive hemorrhage in the postpartum period; therefore, a high index of suspicion is required to detect and prevent complications intrapartum.

**Keywords:** cesarean section, emergency laparotomy, focal placenta percreta, placenta accreta, reactionary hemorrhage

### Introduction

Cesarean section (CS) is the most common surgical procedure in obstetrics, and depending on the facility, the rate varies widely between 10 and 70% of all deliveries (1). It is associated with an increased risk of bleeding, which could be either atonic or traumatic. Besides, various causes of reactionary hemorrhage may include ligature slippage at a uterine angle, bleeding from rectal muscle, injury to vessels in the broad ligament, anticoagulant usage, and patients with

disseminated intravascular coagulation (1,2). The evidence-based evolution of surgical techniques and various adjunct measures like oxytocin and tranexamic acid has reduced the risk of bleeding. Although these advances have made the surgery safer, the risk of bleeding after CS remains higher compared with vaginal delivery (2,3). This is a rare case of massive reactionary hemorrhage due to focal placenta percreta requiring relaparotomy.

### Case presentation

A 32-year gravida 2 para 1 presented to the outpatient department at Jawaharlal Institute Postgraduate Medical Education and Research at 39 gestational weeks. She was scheduled for elective CS given previous cesarean delivery and cephalopelvic disproportion. Her antenatal ultrasound was unremarkable. She had no other obstetric or medical risk factor. Intraoperatively, flimsy adhesions were noted between the anterior abdominal wall and the uterus. A term male baby was delivered with an Apgar score of 10 at 1 and 5 minutes. Prophylactic oxytocin was administered. The placenta separated on its own; however, there was difficulty in removing it in total as there was focal adherence toward the left cornua, which required manual separation and was found to be complete. There was a soft mass of 3 x 3cm with evidence of increased vascularity in the left cornual region and was thought to be a subserous fibroid. The uterus was well contracted and retracted and the estimated blood loss was 560ml.

Eight hours later, she was hypotensive (blood pressure 66/40mmHg) with a shock index of 1.1. She was conscious and oriented but looked anxious. She had mild pallor; however, her pulse rate was 80 beats per minute (BPM). Her saturation was 99% at room air and her respiratory rate was 22 BPM. The abdomen was soft, and the dressing was dry. The uterus was found in the midline and was nonflabby. She had no vaginal bleeding. Her urine output was 100ml/hour. Point of care ultrasound did not reveal any free fluid in the pelvis, Morrison's pouch, or paracolic gutters. With intravenous fluid resuscitation and pain relief, her blood pressure improved to 97/60mmHg. A complete blood count was requested, and the plan was to monitor abdominal girth in addition to vitals.

Three hours later, she developed tachycardia of up to 120 BPM and persistent hypotension (blood pressure 60/40mmHg) despite fluid resuscitation. On examination, she had severe pallor and significant abdominal distension. Ultrasound imaging revealed hemoperitoneum. She was scheduled for an emergency laparotomy. Intraoperatively, a hemoperitoneum of approximately 1.5liters was noted. The subrectal plane and uterine incision were normal. There was no broad ligament hematoma. There was oozing from the left cornual end where a soft mass was covered with omentum, which, when excised, revealed the placental tissue communicating with the cavity (Figure 1). The excised mass was sent for histopathological examination. Omentectomy was performed as the omentum looked contused and

was bleeding. The uterus and adnexa were normal. She was transfused with 4, 4, and 6 units of packed red cells, platelets, and fresh frozen plasma, respectively. Her postoperative recovery was unremarkable, and she was discharged on the fourth postoperative day. Histopathological examination of the mass showed features of normal placental tissue.



**Figure 1:** Focal placenta percreta after releasing the omental adhesion at the left cornual end of the uterus.

## Discussion

The incidence of relaparotomy following CS remains low at 0.2-0.7% (1,3-4). The common causes include intraperitoneal bleeding, postpartum hemorrhage followed by abdominal wall hematoma, injury to the bowel or bladder, and sepsis (3,4). The two main sources of bleeding include the abdominal wall hematoma and the uterus. The common causes of uterine bleeding include uncontrolled postpartum hemorrhage and bleeding from the uterine incision. Focal placenta invasion as a cause of reactionary hemorrhage is rare in the literature. The odds of undergoing relaparotomy are high with an increasing number of cesarean deliveries (OR 14.96 for relaparotomy after three or more CS) and CS for abruptio placenta (OR 15.28), and multiple pregnancies (OR 1.85) (4). Cesarean sections performed by resident doctors, prolonged surgery, CS for cephalopelvic disproportion, and prolonged labor are also associated with an increased risk of relaparotomy. Omental adhesion to the anterior wall of the uterus and difficulty in removing the placenta in total were the difficulties noted in this case. The surgeon explored the adnexa and uterus from all aspects

and identified a localized soft mass on the anterior wall of the uterus with omental attachment mimicked like a sessile subserous fibroid adherent to the omentum. As there was no bleeding observed, the uterus was closed in situ. Exteriorization of the uterus at the end would have helped identify the mass.

There are cases of massive intraperitoneal bleeding in women with placenta accreta spectrum (PAS) during pregnancy across all trimesters but none in the postpartum period (5-8). The risk of PAS increases with the number of CS being 0.24% following one CS to 6.7% following six or more cesarean deliveries. The risk increases markedly with concurrent placenta previa (7). Recognizing PAS before scheduling CS is important as a diagnosis on the table can be associated with an increased risk of complications. The antenatal ultrasound in this case did not have classic findings of PAS as it was focal. The trigger thresholds of maternal heart rate  $\geq 120$ /minute and hypotension of  $< 90$  mmHg of systolic blood pressure were consistently associated with intraabdominal hypertension.

### Conclusion

Focal placenta percreta may present with hypotension and massive hemorrhage in the postpartum period; therefore, a high index of suspicion is required to detect and prevent complications intrapartum. An examination of the placenta and exteriorization of the uterus are essential to diagnose focal placental percreta.

### Consent for publication

Informed consent for publication was obtained from the patient.

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Not applicable.

### Declarations

### Conflict of interests

The authors declare no conflicts of interest.

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