The ESRF Research Journal for Undergraduate Medical Students

Case Report

Volume 3 Issue 2 (Jan-Jun) 2026

Submission: 25th December, 2025

Acceptance: 19th April, 2026

DOI: 10.5281/zenodo.19793571

Corresponding Author

Bhoomi Kalmane Adidam
Shimoga Institute of Medical Sciences,
N.H.206, Sagara Road,
Shivamogga,
Karnataka – 577201
e-mail: bhoomiadidam@gmail.com

Available from: https://esrfrjums.co.in/index.php/main/article/view/92

Published by: Eureka Scientech Research Foundation, Kolkata.

Online access: https://esrfrjums.co.in

Advanced Gestational Caesarean Scar Pregnancy Presenting with Impending Uterine Rupture:

Diagnostic Challenges in a Late Presentation

Bhoomi Kalmane Adidam, Poushali Saha

2nd Year MBBS Student, Shimoga Institute of Medical Sciences, Karnataka

Abstract

Caesarean scar pregnancy (CSP) is a rare but increasingly recognized form of ectopic pregnancy in which implantation occurs within the fibrous tissue of a previous caesarean section scar. With rising caesarean delivery rates, the incidence of CSP is increasing. It may closely mimic other obstetric emergencies clinically and radiologically, especially in advanced gestation, making diagnosis challenging. Early recognition is critical due to the high risk of catastrophic haemorrhage, uterine rupture, and maternal morbidity.

We present a diagnostically complex and life-threatening case of a 25-year-old gravida 3 para 1 living 1 abortion 1 (G3P1A1L1) at 22+6 weeks of gestation, with a history of previous lower segment caesarean section, who presented with acute abdominal pain and heavy vaginal bleeding. On presentation, the patient was hemodynamically unstable with severe pallor and abdominal tenderness. Ultrasonography revealed a low-lying gestational sac at the site of the previous caesarean scar with marked thinning of the anterior myometrium and increased vascularity, suggestive of caesarean scar pregnancy with features of impending uterine rupture.

An emergency exploratory laparotomy was performed in view of ongoing haemorrhage and maternal instability. Intraoperatively, the lower uterine segment was found to be grossly thinned and distended with placental tissue densely adherent to the previous caesarean scar. Active bleeding was noted, and conservative measures failed to achieve haemostasis. A subtotal hysterectomy was performed as a life-saving procedure. The patient required massive blood transfusion but recovered well postoperatively and was discharged in stable condition.

This case highlights the importance of early antenatal diagnosis of caesarean scar pregnancy, especially in women with previous caesarean deliveries. Delayed diagnosis in resource-limited settings can lead to severe maternal morbidity. Increased clinical vigilance, early ultrasonographic evaluation, and timely surgical intervention are essential to improve maternal outcomes.

Keywords: caesarean scar pregnancy, uterine sacculation, emergency laparotomy, obstetric hemorrhage

INTRODUCTION

Caesarean scar pregnancy (CSP) is a rare and potentially life-threatening form of ectopic pregnancy in which the gestational sac implants within the myometrial defect of a previous caesarean section scar. Since its first description in 1978, CSP has gained increasing clinical relevance, largely due to the rising global caesarean section rates.

The reported incidence ranges from 1 in 1,800 to 1 in 3,000 pregnancies, accounting for approximately 6% of all ectopic pregnancies in women with a prior caesarean delivery.

CSP is classified into two types based on the direction of growth:

1. Type I (endogenic), which grows toward the uterine cavity and may continue as a high-risk pregnancy
2. Type II (exogenic), which invades deeply into the myometrium toward the serosa and is associated with a significantly increased risk of early uterine rupture.

Early diagnosis is critical, as delayed recognition can result in catastrophic complications such as

massive haemorrhage, uterine rupture, and maternal morbidity. In advanced gestation, CSP may present with atypical clinical and imaging findings, posing a significant diagnostic challenge and often mimicking other obstetric emergencies such as uterine rupture.

The management of CSP depends on multiple factors including gestational age, hemodynamic status, degree of myometrial invasion, and available healthcare resources. Treatment options range from medical management with methotrexate to surgical interventions such as excision, uterine artery embolization, or hysterectomy in severe cases.

We report a case of advanced gestational caesarean scar pregnancy presenting with hemodynamic instability and features of impending uterine rupture, highlighting the challenges in diagnosis and management, particularly in resource-limited settings. In low-resource settings, delayed diagnosis due to limited access to high-quality imaging and late antenatal registration significantly contributes to adverse maternal outcomes.

CASE PRESENTATION

Clinical History

A 25-year-old woman (G3P1A1L1) at 22 weeks and 6 days of gestation presented to the emergency department with sudden-onset severe lower abdominal pain and heavy vaginal bleeding.

Her obstetric history included one previous lower segment caesarean section performed three years prior for foetal distress, followed by a spontaneous abortion. The current pregnancy was spontaneously conceived.

She had been registered for antenatal care, and first-trimester ultrasonography was reportedly normal, with no documented abnormalities in placental implantation or uterine wall integrity. She had no significant medical or additional surgical history.

Physical Examination

On presentation, the patient was in hypovolemic shock—pale, anxious, and tachycardic.

- ◊ *Vital signs:* Hypotension with clinical features of shock.
- ◊ *Abdominal examination:* Distended abdomen with marked tenderness over the lower uterine segment, guarding, and rebound tenderness.
- ◊ *Pelvic examination:* Active vaginal bleeding on speculum examination; digital examination revealed a shortened cervix, though uterine contour assessment was limited due to severe tenderness.

Diagnostic Imaging:

Ultrasonography demonstrated a low-lying gestational sac with significant thinning of the anterior myometrium at the site of the previous caesarean scar, along with increased peritrophoblastic vascularity. The placenta was noted anteriorly, closely related to the scar, with loss of the normal placental–myometrial interface, raising suspicion for caesarean scar pregnancy with possible placenta accreta spectrum and impending uterine rupture.

Management and Intraoperative Findings

Given the advanced gestational age and hemodynamic instability, conservative management was deemed inappropriate.

A multidisciplinary team approach was initiated, including obstetrics, anesthesia, and transfusion services. A massive transfusion protocol was activated, and the patient was taken for emergency exploratory laparotomy.

Intraoperative Findings

- Significant hemoperitoneum
- Grossly distended and extremely thinned lower uterine segment
- Morbidly adherent placental tissue invading the previous scar
- Distorted uterine anatomy with deviation of the fundus
- Absence of identifiable intact myometrium at the scar site

Attempts at uterine preservation, including haemostatic suturing and repair, were unsuccessful due to uncontrolled haemorrhage from the placental bed.

Surgical Intervention

A life-saving subtotal hysterectomy was performed. Haemostasis was achieved, and both adnexa were preserved.

The patient required multiple transfusions, including packed red blood cells, fresh frozen plasma, and platelets

Postoperative Course

The patient was managed in the intensive care unit and stabilized hemodynamically. She was successfully extubated, and the abdominal drain was removed on postoperative day 8.

Comprehensive psychological counselling was provided, particularly addressing the loss of future fertility.

She was discharged in stable condition on postoperative day 14.

DISCUSSION

This case underscores the diagnostic challenge of advanced caesarean scar pregnancy presenting with features suggestive of uterine rupture. While CSP is typically identified in the first trimester, delayed diagnosis into the second trimester significantly increases the risk of uterine rupture, catastrophic haemorrhage, and maternal morbidity.

In the present case, the patient presented with acute abdominal pain, heavy vaginal bleeding, and hemodynamic instability. Ultrasonography findings were suggestive of CSP with possible placenta accreta spectrum. The clinical presentation closely resembled uter-

-ine rupture, making early diagnosis difficult.

In hemodynamically unstable patients, rapid clinical assessment and prompt surgical intervention take precedence over extensive imaging.

This case highlights an advanced presentation of CSP requiring emergency hysterectomy, emphasizing the importance of early antenatal diagnosis and timely management.

Challenges in Resource-Limited Settings:

1. *Delayed diagnosis:* Limited access to high-resolution ultrasonography and trained personnel
2. *Misdiagnosis:* Often confused with low-lying placenta, cervical pregnancy, or inevitable abortion
3. *Referral delays:* Loss of critical time during inter-facility transfer
4. *Blood product limitations:* Delayed or inadequate access to transfusion support
5. *Limited multidisciplinary care:* Lack of interventional radiology and experienced surgical teams

Management Strategies for Low-Resource Settings:

1. *High index of suspicion:* Any pregnant woman with prior caesarean section presenting with pain or bleeding should be evaluated for CSP
2. *Point-of-care ultrasonography:* Early identification of low-implanted gestational sac and empty uterine cavity
3. *Early stabilization and transfer:* Prompt resuscitation with IV fluids and blood products before referral
4. *Temporizing measures:* Use of uterine tamponade (Foley catheter/Bakri balloon) or aortic compression where feasible
5. *Strengthening referral systems:* Early transfer to tertiary care centers with surgical expertise

CONCLUSION

Caesarean scar pregnancy is a rare but potentially catastrophic condition that requires a high index of clinical suspicion and early diagnosis. Advanced presentations may closely mimic uterine rupture, leading to delays in recognition and management.

This case highlights the severe maternal risks associated with delayed diagnosis, including massive haemorrhage and the need for life-saving hysterectomy. Early antenatal screening, prompt use of ultrasonography, and timely referral to higher centres are crucial in improving outcomes.

Strengthening diagnostic capabilities and management strategies, particularly in resource-limited settings, is essential to reduce maternal morbidity and prevent avoidable complications.

CONFLICT OF INTEREST

None Declared

FUNDING

None Declared

FIGURES

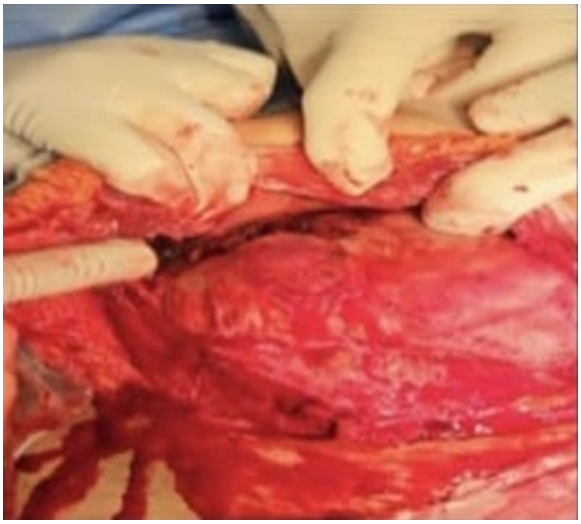

Figure 1: Hemoperitoneum

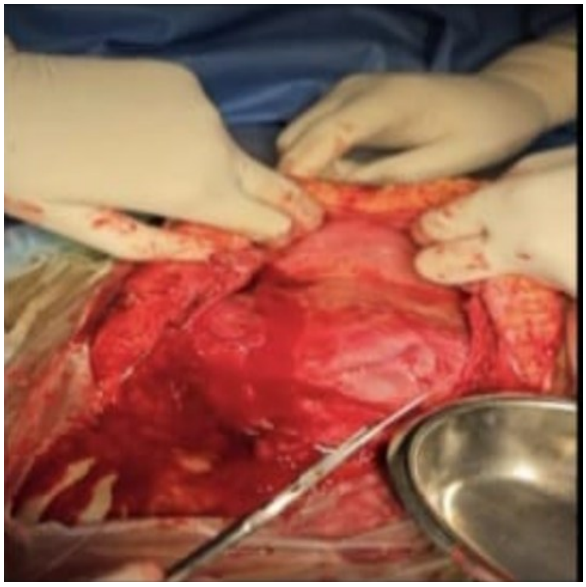

Figure 2: Distorted uterine anatomy with deviation of the fundus

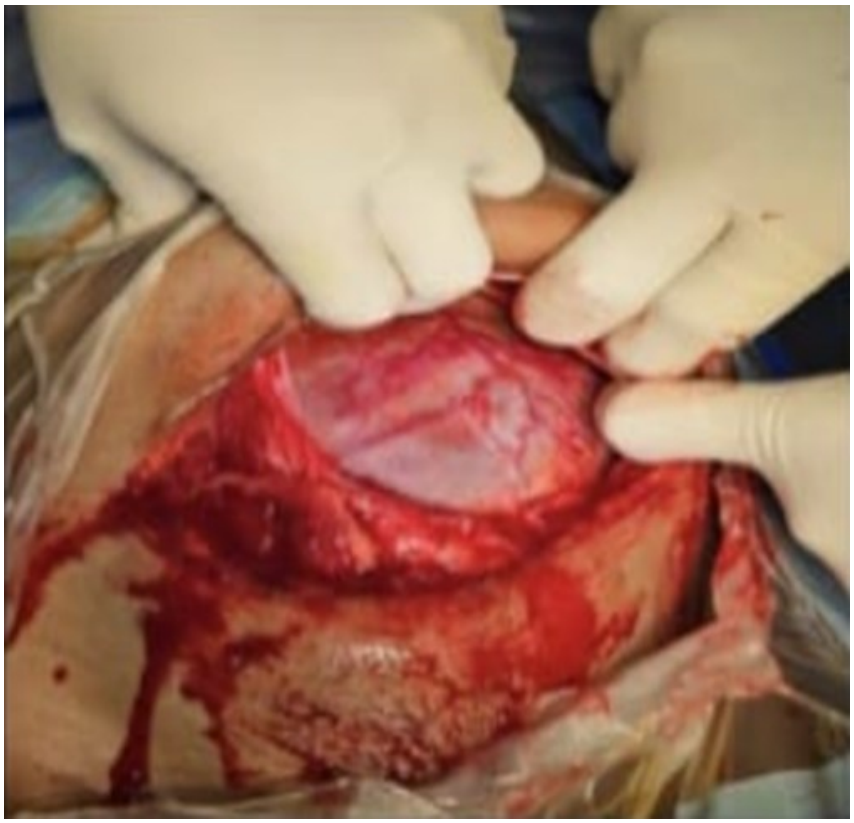

Figure 3: Grossly distended and extremely thinned lower uterine segment