

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20262575>

Case Report

Uterine rupture following previous cornual ectopic pregnancy: a rare obstetric emergency

Sharmila Kumar Gopalan*, Swathi Kavitha Jayaraj,
Vani Kaliaperumal, Brundha Thiruvarulnathan

Department of Obstetrics and Gynecology, Panimalar Medical College Hospital and Research Institute, Chennai, Tamil Nadu, India

Received: 21 June 2026

Accepted: 15 July 2026

*Correspondence:

Dr. Sharmila Kumar Gopalan,

E-mail: drsharmilagopalan@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Uterine rupture in pregnancy following previous cornual ectopic pregnancy surgery is an uncommon but potentially catastrophic obstetric emergency. Prior cornual surgery may result in localized myometrial weakness, predisposing to rupture during a subsequent pregnancy. A 25-year-old gravida 2 abortion 1 woman at 30+2 weeks of gestation presented with sudden onset abdominal pain, vaginal bleeding, and absent fetal movements. She had undergone laparoscopic salpingectomy for a cornual ectopic pregnancy one year earlier. Clinical examination revealed absent fetal heart sounds and features suggestive of intra-abdominal bleeding. Emergency laparotomy demonstrated hemoperitoneum and rupture at the previous cornual surgery site with extrusion of the fetus into the peritoneal cavity. Uterine repair was performed successfully. Previous cornual ectopic pregnancy surgery should be recognized as a significant risk factor for uterine rupture in subsequent pregnancies. Early diagnosis and prompt surgical intervention are essential to improve maternal outcomes.

Keywords: Uterine rupture, Cornual ectopic pregnancy, Interstitial pregnancy, Cornual scar, Obstetric emergency

INTRODUCTION

Uterine rupture is a rare but life-threatening obstetric emergency associated with significant maternal and fetal morbidity. The majority of cases occur in women with a previous cesarean scar; however, rupture following surgery for cornual ectopic pregnancy has also been reported.^{1,2}

Cornual or interstitial ectopic pregnancy accounts for approximately 2-4% of all ectopic pregnancies. Surgical management often involves cornuostomy, cornual resection, or salpingectomy. Although successful, these procedures may weaken the myometrium and predispose the uterus to rupture during a subsequent pregnancy.³

We report a rare case of spontaneous uterine rupture at 30 weeks gestation in a woman with a previous laparoscopic cornual salpingectomy.

CASE REPORT

A 25-year-old gravida 2 abortion 1 woman presented at 30+2 weeks gestation with severe abdominal pain and vaginal bleeding of six hours duration. She also reported absence of fetal movements for two hours before presentation.

Her previous pregnancy had been diagnosed as a cornual ectopic pregnancy and managed by laparoscopic salpingectomy in 2024. The present pregnancy was spontaneous and antenatal follow-up had been uneventful.

On admission, patient had tachycardia and blood pressure was normal. Abdominal examination revealed diffuse tenderness with difficulty in delineating uterine contour. Speculum examination revealed vaginal bleeding. Vaginal examination showed a minimally dilated cervix with blood-stained fingers.

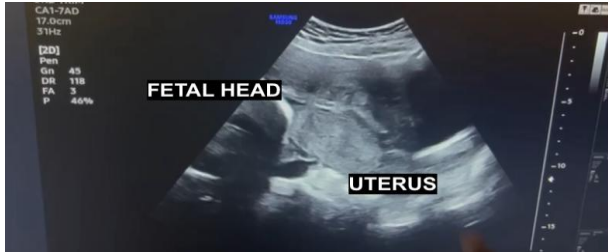


Figure 1: Ultrasound showing disrupted uterine contour with fetus visualized outside the uterus, consistent with uterine rupture.



Figure 2: Intra-operative photograph showing stillborn fetus being delivered from the abdominal cavity.



Figure 3: Intra-operative image showing rupture at the uterine cornual region (arrow).

Initial bedside assessment revealed absent fetal heart sounds. Ultrasonography was performed and revealed absent fetal cardiac activity. The fetus appeared to be in an extrauterine location. There was also evidence of free fluid in the abdomen, raising suspicion of hemoperitoneum. The

uterine contour appeared irregular. However, given the acute presentation and high index of clinical suspicion for uterine rupture, immediate surgical intervention to prevent maternal deterioration and emergency laparotomy was performed after resuscitation. Intraoperatively, significant hemoperitoneum was present. A rupture involving the cornual region corresponding to the previous surgical site was identified. The fetus was found extruded into the peritoneal cavity. Uterine repair was performed after achieving adequate hemostasis. Post-repair image demonstrating restoration of uterine integrity.

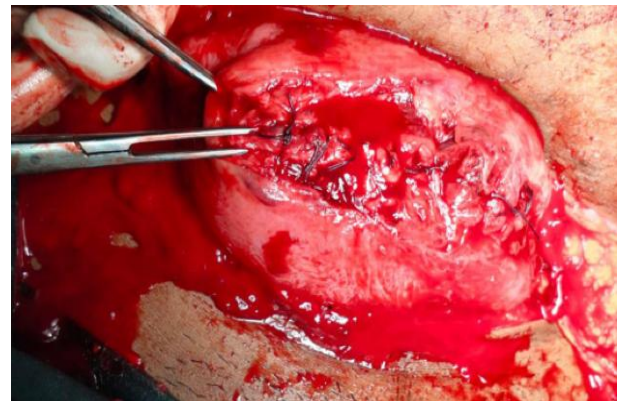


Figure 4: Post-repair image demonstrating restoration of uterine integrity.

DISCUSSION

Cornual ectopic pregnancies pose unique surgical challenges because of their location within the interstitial portion of the fallopian tube. Surgical treatment can result in myometrial weakening and scar formation.⁴

Subsequent uterine rupture following cornual surgery remains rare but has been reported during the second and third trimesters. Clinical presentation is often nonspecific and may include abdominal pain, vaginal bleeding, fetal distress, or intrauterine fetal demise.^{5,6} In the present case, the history of previous cornual surgery was the major risk factor. Prompt recognition and immediate surgical intervention were crucial in preventing severe maternal morbidity.

Women with a history of cornual ectopic pregnancy surgery should be considered high risk during future pregnancies. Careful antenatal surveillance and planned delivery in a tertiary care center may reduce adverse outcomes.^{7,8}

CONCLUSION

Previous cornual ectopic pregnancy surgery is an important but under-recognized risk factor for uterine rupture. Obstetricians should maintain a high index of suspicion when such patients present with abdominal pain during pregnancy. Early diagnosis and timely laparotomy remain the cornerstone of management.

ACKNOWLEDGEMENTS

The authors thank the Department of Obstetrics and Gynaecology and the operating room staff involved in the management of this patient.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Tulandi T, Al-Jaroudi D. Interstitial pregnancy: results generated from the Society of Reproductive Surgeons Registry. *Obstet Gynecol.* 2004;103(1):47-50.
2. Moawad NS, Mahajan ST, Moniz MH, Taylor SE, Hurd WW. Current diagnosis and treatment of interstitial pregnancy. *Am J Obstet Gynecol.* 2010;202(1):15-29.
3. Odejinmi F, Huff KO, Oliver R. Uterine rupture following laparoscopic management of interstitial pregnancy. *J Obstet Gynaecol.* 2011;31(4):326-8.
4. Miller DA, Goodwin TM, Gherman RB, Paul RH. Intrapartum rupture of the unscarred uterus. *Obstet Gynecol.* 1997;89(5 Pt 1):671-3.
5. Downey GP, Tuck SM. Spontaneous uterine rupture during subsequent pregnancy following non-excision of an interstitial ectopic gestation. *Br J Obstet Gynaecol.* 1994;101(2):162-3.
6. Liao CY, Tse J, Sung SY. Uterine rupture after laparoscopic cornual resection. *Taiwan J Obstet Gynecol.* 2017;56(5):703-5.
7. Moon HS, Choi YJ, Park YH, Kim SG. New simple endoscopic operations for interstitial pregnancies. *Am J Obstet Gynecol.* 2000;182(1 Pt 1):114-21.
8. Malik S, Fahad A. Case of Cornual Uterine Rupture in Subsequent Pregnancy Following Laparoscopic Removal of Cornual Ectopic Pregnancy. *Cureus.* 2023;15(12):e49766.

Cite this article as: Gopalan SK, Jayaraj SK, Kaliaperumal V, Thiruvavurnathan B. Uterine rupture following previous cornual ectopic pregnancy: a rare obstetric emergency. *Int J Reprod Contracept Obstet Gynecol* 2026;15:3283-5.