WJPMR, 2026, 12(7), 371-373

Case Report

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

Impact Factor: 7.555

ISSN (O): 2455-3301

ISSN (P): 3051-2557

Coden USA: WJPMBB

CORNUAL ECTOPIC PREGNANCY: A RARE FORM OF ECTOPIC PREGNANCY

***Dr. Oumaima Damoun, Kawtar Cherradi, Salma Tahri Jautei, Samir Bargach**

Department of Gynecology-Obstetrics and High Risk Pregnancy, Maternity Souissi Hospital Center Ibn Sina, University Mohamed 5, Rabat, MAR.

***Corresponding Author: Dr. Oumaima Damoun**

Department of Gynecology-Obstetrics and High Risk Pregnancy, Maternity Souissi Hospital Center Ibn Sina, University Mohamed 5, Rabat, MAR. **DOI:** https://doi.org/10.5281/zenodo.21018669

How to cite this Article: *Dr. Oumaima Damoun, Kawtar Cherradi, Salma Tahri Jautei, Samir Bargach (2026). Cornual Ectopic Pregnancy: A Rare Form Of Ectopic Pregnancy. World Journal of Pharmaceutical and Medical Research, 12(7), 371-373.

Article Received on 05/06/2026 **Article Revised on 25/06/2026** **Article Published on 01/07/2026**

ABSTRACT

Cornual pregnancy is a rare variant of ectopic pregnancy, yet it carries a disproportionately high risk of uterine rupture and life-threatening hemorrhage. We report the case of a 34-year-old woman, gravida 2 para 2, with a history of two previous cesarean sections, who presented with left iliac fossa pain, vaginal bleeding, and 6 weeks of amenorrhea, accompanied by a positive home pregnancy test. Clinical examination revealed marked hemodynamic instability, including tachycardia, hypotension, and cutaneous-mucosal pallor. Transvaginal ultrasound demonstrated an empty uterine cavity and a 3 cm gestational sac located in the left cornual region, surrounded by a thin myometrial layer, with minimal pelvic free fluid in the pouch of Douglas. Emergency exploratory laparotomy confirmed the diagnosis. A left cornual resection with ipsilateral salpingectomy was successfully performed, and the postoperative course was uneventful. Early diagnosis and prompt management remain essential to prevent severe maternal complications and optimize clinical outcomes.

INTRODUCTION

Ectopic pregnancy (EP) is a common obstetric condition, accounting for approximately 1–3% of all pregnancies.[1] Among its various anatomical locations, cornual pregnancy represents a rare entity, estimated to comprise around 2% of cases.[2]

Historically, the term “cornual pregnancy” referred to blastocyst implantation occurring either within a rudimentary horn of a bicornuate uterus or within a remnant tubal stump.[2] Currently, it is strictly defined as the implantation of the blastocyst within the intramural portion of the fallopian tube at the uterotubal junction.

Cornual pregnancy remains a formidable diagnostic challenge due to the non-specific nature of its clinical presentation and the difficulty in interpreting imaging findings. The classic clinical triad of amenorrhea, abdominal pain, and vaginal bleeding is inconsistent, manifest in fewer than 40% of cases.[3] Its severity lies in the high propensity for delayed rupture, which may result in catastrophic hemorrhage and increased maternal morbidity.[4,5]

Diagnosis relies primarily on transvaginal ultrasound, and subsequent management depends on the patient’s hemodynamic status, gestational age, and future fertility desires. We report a case of cornual ectopic pregnancy illustrating the diagnostic challenges and therapeutic management associated with this condition.

CASE PRESENTATION

A 34-year-old woman, gravida 2 para 2, with a history of two previous cesarean sections and no other significant medical or gynecological history, presented to the gynecology and obstetrics emergency department. She reported left iliac fossa pain, vaginal bleeding, and 6 weeks of amenorrhea, along with a positive home urine pregnancy test. The patient described pelvic pain evolving over one week, with acute worsening of symptoms on the day of presentation.

On clinical examination, marked tenderness was noted in the left iliac fossa, accompanied by mild cervical motion tenderness. The patient demonstrated signs of hemodynamic compromise, characterized by tachycardia at 120 beats per minute, hypotension (90/60 mmHg), and distinct cutaneous and mucosal pallor.

Laboratory investigations revealed a white blood cell count of 8.5 × 10^9 /L, a platelet count of 280 × 10^9 /L, and an initial hemoglobin level of 12 g/dL. This baseline hemoglobin value, despite clinical signs of shock, was consistent with an acute hemorrhagic event prior to the onset of hemodilution.

Transvaginal ultrasound demonstrated an empty uterine cavity and a well-defined gestational sac measuring 3 cm in diameter, located eccentrically in the left cornual region and surrounded by a thin myometrial layer (Fig. 1). A minimal amount of pelvic free fluid was also observed within the pouch of Douglas.

An emergency exploratory laparotomy was immediately performed. Intraoperative findings revealed a distended mass at the left uterine cornu, associated with significant thinning of the overlying myometrium (Fig. 2). A left cornual resection with ipsilateral salpingectomy was successfully executed (Fig. 3).

The postoperative course was entirely uneventful. Clinical follow-up at two weeks showed no abnormalities, and histopathological examination definitively confirmed the diagnosis of cornual ectopic pregnancy.

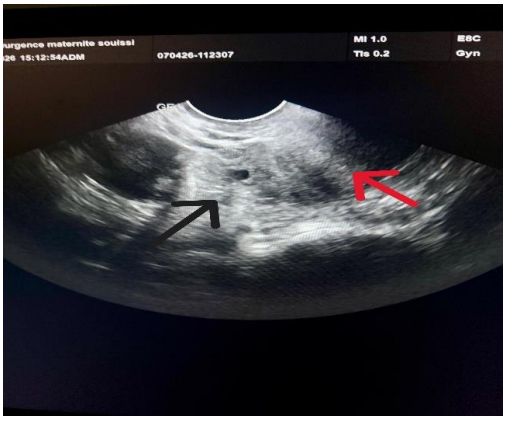

Fig. 1: Transvaginal ultrasound showing an eccentrically located gestational sac within the left cornual region (white arrow), uterus (red arrow).

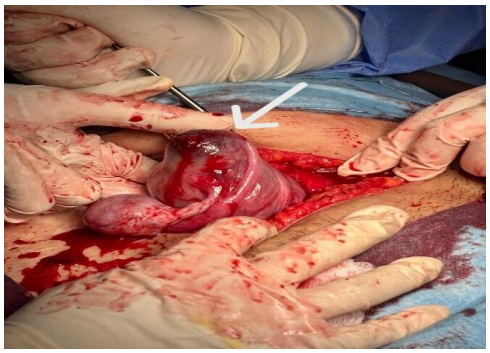

Fig. 2: Intraoperative view of a non-ruptured left cornual ectopic pregnancy measuring approximately 3 cm (white arrow).

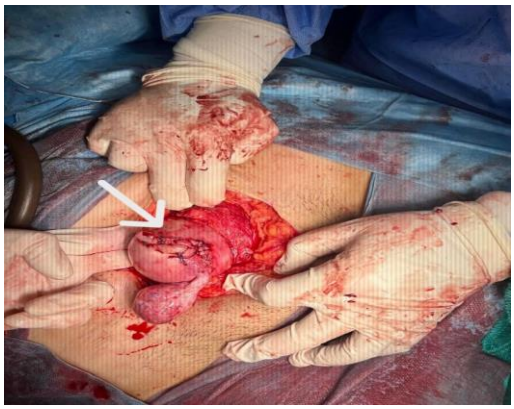

Fig. 3: Postoperative view after left cornual resection and unilateral salpingectomy (white arrow).

DISCUSSION

Cornual pregnancy is an uncommon form of ectopic pregnancy, accounting for approximately 2% of cases, yet it is associated with substantial maternal morbidity due to the high risk of rupture and massive hemorrhage. It results from implantation of the blastocyst within the intramural segment of the fallopian tube at the uterotubal junction.[6] This specific anatomical region is highly vascularized by branches of both the uterine and ovarian arteries, explaining the potential for delayed but severe rupture.[7]

Risk factors include previous induced abortion, spontaneous miscarriage, pelvic infections, and smoking.[8] However, as illustrated in our case, cornual pregnancy may also occur sporadically in the absence of identifiable risk factors.

Diagnosis remains challenging due to its non-specific clinical presentation. The classical triad of amenorrhea, pelvic pain, and vaginal bleeding is inconsistent.[9] In the present case, pelvic pain was the predominant symptom, associated with acute hemodynamic instability. Transvaginal ultrasound is the cornerstone of diagnosis. Typical sonographic findings include an eccentrically located gestational sac surrounded by a thin myometrial mantle and separated from an empty uterine cavity by more than 1 cm.[3,10]

Management should be strictly individualized based on gestational age, hemodynamic status, β-hCG levels, and reproductive wishes.[9] Medical treatment with methotrexate may be considered in early, uncomplicated cases. However, in advanced presentations or cases involving hemodynamic instability, immediate surgical intervention is mandatory.

Laparoscopy is currently the preferred approach in stable patients, allowing cornual resection or cornuostomy with effective hemostasis.[11,12] Advances in minimally invasive surgery have significantly improved clinical outcomes, reducing both postoperative morbidity and recovery time.[13,14]

The risk of recurrence and uterine rupture in subsequent pregnancies necessitates close, long-term follow-up. Current strategies favor individualized and conservative management to optimize future obstetric outcomes.[15]

CONCLUSION

Cornual pregnancy is a rare but potentially life-threatening condition due to the high risk of hemorrhagic rupture and severe maternal complications. Early diagnosis, primarily driven by transvaginal ultrasound, is essential for improving clinical outcomes. Management must be tailored to each clinical situation, with surgical intervention remaining the cornerstone of treatment in complicated or unstable cases. Our case underscores the importance of prompt diagnosis and appropriate management to reduce maternal morbidity and preserve future fertility.

REFERENCES

1. Barnhart KT. Clinical practice. Ectopic pregnancy. *N Engl J Med*., 2009; 361(4): 379–387.
2. Nikodijevic K, Bricou A, Benbara A, Moreaux G, Nguyen C, Lionel C, Poncelet C, Boujenah J. Cornual pregnancy: management and subsequent fertility. *Gynecol Obstet Fertil*., 2016; 44(11): 623-628.
3. Hussein A, Obaid AA, Almikhlafi NMA. Coexistence of cornual ectopic pregnancy and septated uterus anomaly: a case report of ultrasound diagnosis and surgical intervention. *Medical Reports*, 2025; 5(12): 101-105.
4. Carius BM, Houston EJ, Griffith SP. A case report of massive intraperitoneal hemorrhage from rare cornual pregnancy. *Clin Pract Cases Emerg Med*., 2022; 6(1): 41–44.
5. Prenaud C, Scherrer S, Malgras B. Management of a cornual ectopic pregnancy. *J Visc Surg*., 2021; 158(3): 263-265.
6. Gaetani M, Di Gennaro D, Vimercati A, Vitagliano A, Dellino M, Malvasi A, et al. Cornual pregnancy. *Gynecol Minim Invasive Ther*., 2023; 12(3): 130–134.
7. Sharma C, Patel H. Ruptured cornual ectopic pregnancy: a rare and challenging obstetric emergency. *Cureus*., 2023; 15(10): e47842.
8. Carius BM, Houston EJ, Griffith SP. A case report of massive intraperitoneal hemorrhage from rare cornual pregnancy. *Clin Pract Cases Emerg Med*., 2022; 6(1): 41–44.
9. Boujida S, M'hamdi O, Mahfoud H, Baydada A, Kharbach A. Ruptured interstitial ectopic pregnancy: a case report and review of the literature. *Ann Med Surg (Lond)*., 2022; 79: 104076.
10. Timor-Tritsch IE, Monteagudo A, Matera C, Veit CR. Sonographic evolution of cornual pregnancies treated without surgery. *Obstet Gynecol*., 1992; 79(6): 1044–1049.
11. Aymen FM, Majed G. Laparoscopic aspect of cornual pregnancy. *Pan Afr Med J*., 2016; 23: 245.
12. Nadi M, Richard C, Filipuzzi L, Bergogne L, Douvier S, Sagot P. Interstitial, angular and cornual pregnancies: diagnosis, treatment and subsequent fertility. *Gynecol Obstet Fertil Senol*., 2017; 45(6): 340–347.
13. Habana A, Dokras A, Giraldo JL, Jones EE. Cornual heterotopic pregnancy: contemporary management options. *Am J Obstet Gynecol*., 2000; 182(5): 1264–1270.
14. Kim MJ, Jung YW, Cha JH, Seok HH, Han JE, Seong SJ, et al. Successful management of heterotopic cornual pregnancy with laparoscopic cornual resection. *Eur J Obstet Gynecol Reprod Biol*., 2016; 203: 199–203.
15. Varun N, Nigam A, Elahi AA, Jain A. Cornual ectopic pregnancy: laparoscopic management step by step. *BMJ Case Rep*., 2018; 11(1): bcr2017223998.