Case Report

O&G OPEN ACCESS

Case Report: Rupture of Chronic Ectopic Pregnancy in a Patient Presented with an IUD: The Underestimated Risk of IUD

Chanmony Keo, Singing Taing

Received Date: Month 00, 2025 **Published Date:** Month 08, 2025

Introduction

Ectopic pregnancy is defined as a pregnancy in which the developing fertilized egg is implanted outside of the endometrium. In normal cases, when the egg is fertilized, the gestational sac will then move to the uterine cavity for implantation 6 days later. The most common anatomic locations of ectopic pregnancy are the fallopian tube; however, other locations such as interstitial, cervical, abdominal, ovarian and c-section scar pregnancy are also possible.[1] Risk factors of ectopic pregnancy lie importantly in diseases or conditions that cause damage to the fallopian tubes, such as salpingitis, pelvic inflammatory disease, pelvic surgery, and smoking. Other risk factors are patients undergoing assisted reproductive technology and having an IUD. Patients who use contraceptive methods, either an intrauterine device or COPs, have a lower chance of becoming pregnant; however, if they do, they have a higher chance of developing an ectopic pregnancy.[2] The incidence of an IUD patient having an ectopic pregnancy is 0,46 per 1000 woman-years.[2]

Chronic ectopic pregnancy is a type of ectopic pregnancy in which the patient may not have acute abdominal pain and have a low plasmatic β-HCG level and/or a complex mass in ultrasound findings. The diagnosis of this form of ectopic pregnancy may be challenging. Surgical treatment remains the mainstay of treatment.

How to Cite: Keo C, Taing S. Case Report: Rupture of Chronic Ectopic Pregnancy in a Patient Presented with an IUD: The Underestimated Risk of IUD. J. Comprehensive Obs. & Gynec Care. 2025; 1(1): 1-3

© 2025 The Authors.
ISSN: 3105-8507
DOI: 10.66143/jcogcvol1iss116

Case presentation

A 36-year-old patient came in for persistent menstrual cramping, which was getting worse in the last 3 days. Her menstrual cycle is regular and her first day of menses was 3 days ago. When asked further, her first day of her menstrual period was supposed to be 2 weeks ago. Her obstetric history includes a cesarean section 8 and 5 years ago and 1 abortion 4 years ago. After her abortion, she started to use a copper IUD as a contraceptive method.

Physical examination showed a stable vital sign, no sign of anemia, and abdominal guarding in the left iliac fossa. Gynecological examination revealed a brownish spotting and cervical tenderness. A transvaginal ultrasound was performed, which showed a normal uterine with an IUD in place and an endometrial thickness of 11 mm. A left lateral uterine mass of 28 x 36 mm was found along with moderate free fluid in the Douglas.

Further investigations were ordered. Her urine pregnancy test was positive. β-HCG level was453,4 mUI/L, hemoglobin level 11.1 g/dl, liver function and renal function were all normal. Her pain worsened and due to her acute abdomen, an explorative laparotomy was performed. Rupture of the left tubal ectopic pregnancy and a para-tubal cyst were found. There were multiple adhesions as she had undergone a C-section twice. Left salpingectomy was performed without any complications. Her total blood loss was around 300 cc.

Discussion

The woman claimed that her first day of menses was 3 days ago. However, we followed our guideline, which requires us to exclude ectopic pregnancy in all reproductive-aged women presented with abdominal or pelvic pain or vaginal bleeding. During the gynecological examination, what we found was not a period. Her period was actually 2 weeks late, but she didn't take the

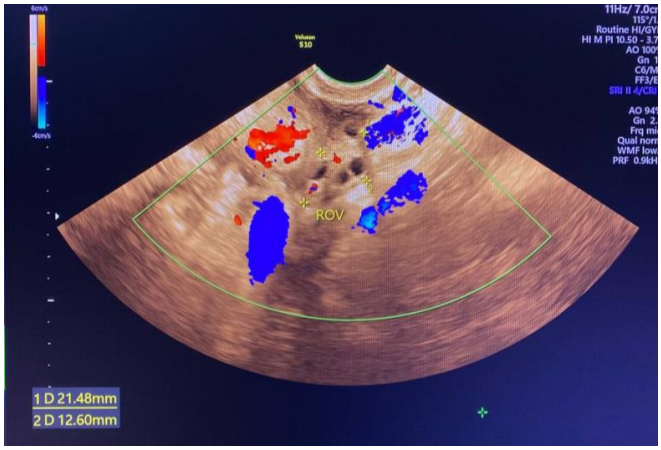

Figure 1: Transvaginal ultrasound showing the right ovary

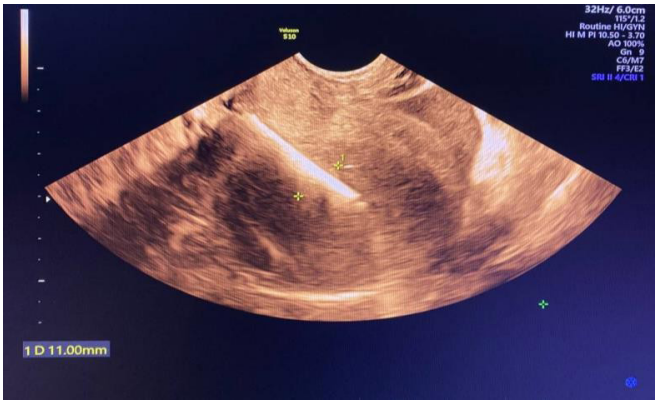

Figure 2: Transvaginal ultrasound showing IUD in place with endometrium thickness of 11 mm

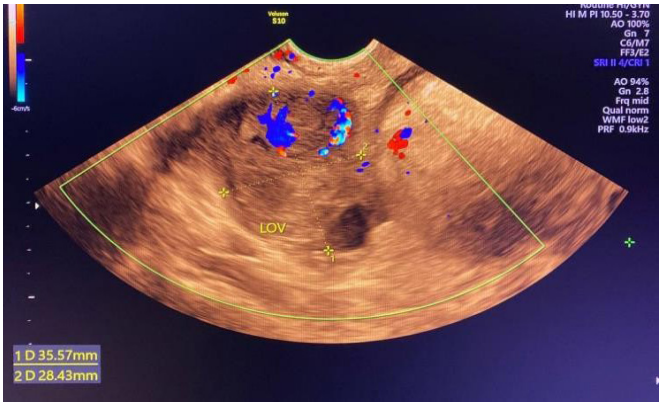

Figure 3: Transvaginal ultrasound showing a left complex mass of 28 x 35mm

Figure 4: Intraoperative image showing a ruptured tubal ectopic pregnancy

urine pregnancy test as she thought she already had an IUD in place; hence, pregnancy is impossible from her perspective.

Transvaginal ultrasound plays a crucial role for clinicians in diagnosing ectopic pregnancy, as in this case, it demonstrated endometrium thickening of 11 mm with an IUD in place and a left lateral uterine mass of 28 x 36 mm and moderate free fluid around the uterus. Clearly, these are the indirect signs of ectopic pregnancy.

Chronic ectopic pregnancy can be challenging to diagnose as the β-HCG level is often low.[3] With an IUD in place, patients often forget about the possibility of pregnancy.

This case report emphasizes that any woman of reproductive age who presents to the ER with abdominal or pelvic pain or vaginal bleeding, despite a low β-HCG and the presence of an IUD in place or her claimed date of last menstrual period, ectopic pregnancy should be suspected until proven otherwise.

Conclusion

Ectopic pregnancy in a patient with an IUD is rare. The report shows the challenges for the approach of diagnosis as the form of ectopic pregnancy in this case is a chronic form; therefore, the β-HCG level may cause hesitations for surgical management, which could lead to a life-threatening condition for the patient. Hence, it is necessary for all clinicians to consider ectopic pregnancy as a first differential diagnosis in all women of childbearing age, regardless of their last day of menstrual period, contraceptive methods, who come for pelvic symptoms and inconclusive imaging findings.

References

1. Bouyer J, Coste J, Fernandez H, et al. Sites of ectopic pregnancy: a 10 year population-based study of 1800 cases. Hum Reprod 2002; 17:3224.
2. Schultheis P, Montoya MN, Zhao Q, Archer J, Madden T, Peipert JF. Contraception and ectopic pregnancy risk: a prospective observational analysis. Am J Obstet Gynecol. 2021 Feb;224(2):228-

229. doi: 10.1016/j.ajog.2020.10.013. Epub 2020 Oct 10. PMID: 33049248.

3. Tempfer CB, Dogan A, Tischoff I, Hilal Z, Rezniczek GA: Chronic ectopic pregnancy: case report and systematic review of the literature. Arch Gynecol Obstet. 2019, 300:651-60. 10.1007/s00404-019-05240-7