

Case reports

Peritubal Endometriosis Discovered During Surgery for Ovarian Torsion in an Adolescent Without Dysmenorrhea: A Case Report

Samar Kaddoura¹ , Latha Ganti, MD, MS, MBA, FACEP, FAAN² 

¹ Montverde Academy, ² The Warren Alpert Medical School of Brown University

Keywords: adolescent endometriosis, ovarian torsion, paratubal cyst, laparoscopy

<https://doi.org/10.62186/001c.172338>

Academic Medicine & Surgery

Endometriosis is often investigated in adolescents because of dysmenorrhea or chronic pelvic pain. We report a 15-year-old girl with previously painless menstruation who presented with abrupt severe right lower-quadrant pain and nausea. Ultrasonography suggested marked right ovarian enlargement and an 8.4-cm adnexal cyst; Doppler flow was present but showed elevated resistance. Urgent laparoscopy confirmed right ovarian torsion. The ovary was detorsed and preserved, and a cyst arising from the right fallopian tube/peritubal region was excised. Histopathology identified endometriosis with vascular congestion. Postoperative recovery was uncomplicated. A right-sided cyst was documented on subsequent imaging; later ovarian measurements decreased. This case underscores that endometriosis may be discovered during an acute adnexal emergency without preceding menstrual symptoms and that ultrasonography may not establish the precise origin of a large adnexal lesion.

1. CASE PRESENTATION

A 15-year-old postmenarchal girl presented to the Emergency Department in June 2025 with sudden severe right lower-quadrant pain and nausea. Before this episode, she reported predominantly painless menses lasting 4–5 days and denied chronic pelvic pain, significant dysmenorrhea, or similar prior episodes. She had no other past medical or surgical history.

Pelvic ultrasonography reported a markedly enlarged right ovary measuring $9.2 \times 10.3 \times 8.0$ cm (estimated volume, 396 mL) and an apparent ovarian cyst measuring $2.1 \times 8.4 \times 6.2$ cm. Doppler flow was detectable but showed increased vascular resistance. A small amount of cul-de-sac free fluid was noted. The uterus and left ovary had no reported significant abnormality. Despite detectable flow, the clinical and sonographic findings raised concern for torsion ([Figure 1](#)).

Urgent laparoscopy confirmed right ovarian torsion. The right ovary was detorsed and preserved, with a satisfactory appearance after detorsion. The large cystic lesion, initially thought to be ovarian on ultrasound, was identified intraoperatively as originating in the right fallopian tube/peritubal region. The cyst was excised; no additional gross lesions suggestive of endometriosis were seen. The specimen was submitted as a right peritubal cyst. Final histopathologic examination showed endometriosis with vascular congestion and no malignancy.

At approximately 2-week follow-up, the patient reported no ongoing abdominal pain, nausea, vomiting, or fever; her laparoscopic incisions were healing appropriately. Pathology was discussed with the patient and her mother, and gynecologic follow-up was arranged. In October 2025, ul-

trasound documented a right ovarian cyst measuring $49.1 \times 37.7 \times 44.5$ mm. The February and June 2026 imaging records documented right ovarian volumes of approximately 9.2 and 3.9 cm³, respectively; however, it was unclear whether the October cyst had resolved or represented a new or persistent lesion. The chronology is summarized in [Figure 2](#). This case report was prepared in accordance with the Consensus-based Clinical Case Reporting Guideline Development (CARE) guidelines.¹

2. DISCUSSION

Adolescent endometriosis is commonly considered in patients with dysmenorrhea or chronic pelvic pain.^{2,3} In a systematic review, endometriosis was identified in 648 of 1,011 (64%) adolescents who underwent laparoscopy for pelvic pain; that figure reflects a selected symptomatic group, not the prevalence in all adolescents.³ The current case illustrates a different diagnostic pathway: endometriosis was found histologically in a peritubal cyst removed during an acute surgical emergency, although the patient reported no preceding menstrual or chronic pelvic symptoms. The lack of additional visible implants does not exclude microscopic disease elsewhere.

Acute unilateral pain with nausea is typical of adnexal torsion. The presence of Doppler flow does not exclude torsion, and prompt laparoscopy with detorsion and adnexal preservation is recommended when the clinical suspicion is high.^{4–6} The surgical findings in this patient confirmed torsion despite preserved flow on ultrasound. In addition, the lesion interpreted preoperatively as ovarian was found to be peritubal. Large adnexal lesions can obscure their anatomic origin on ultrasonography, and operative inspection may

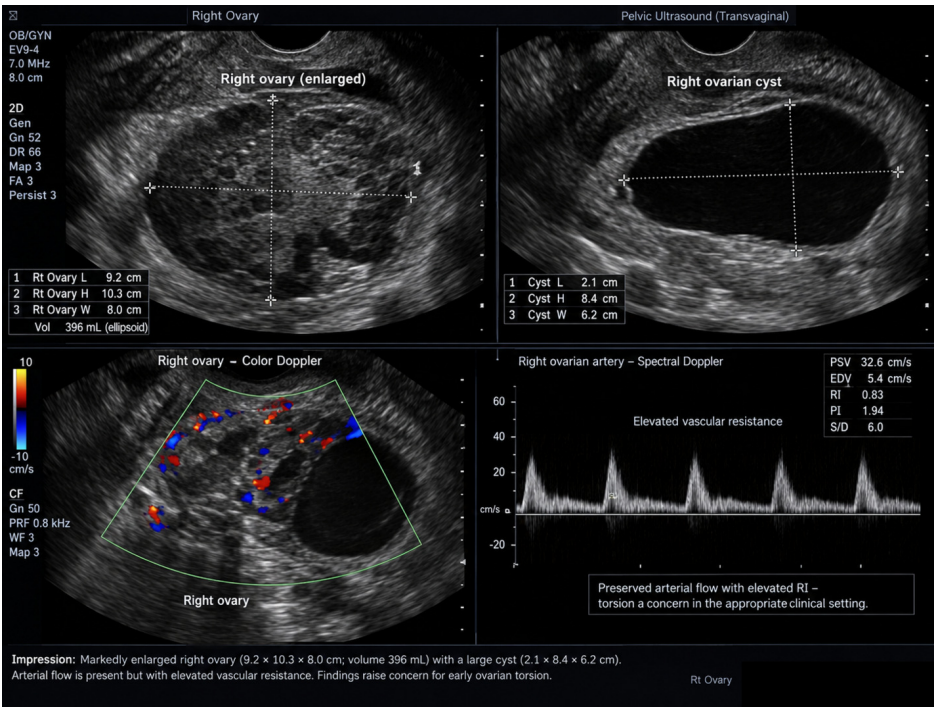


Figure 1. Pelvic ultrasound composite created from patient report.

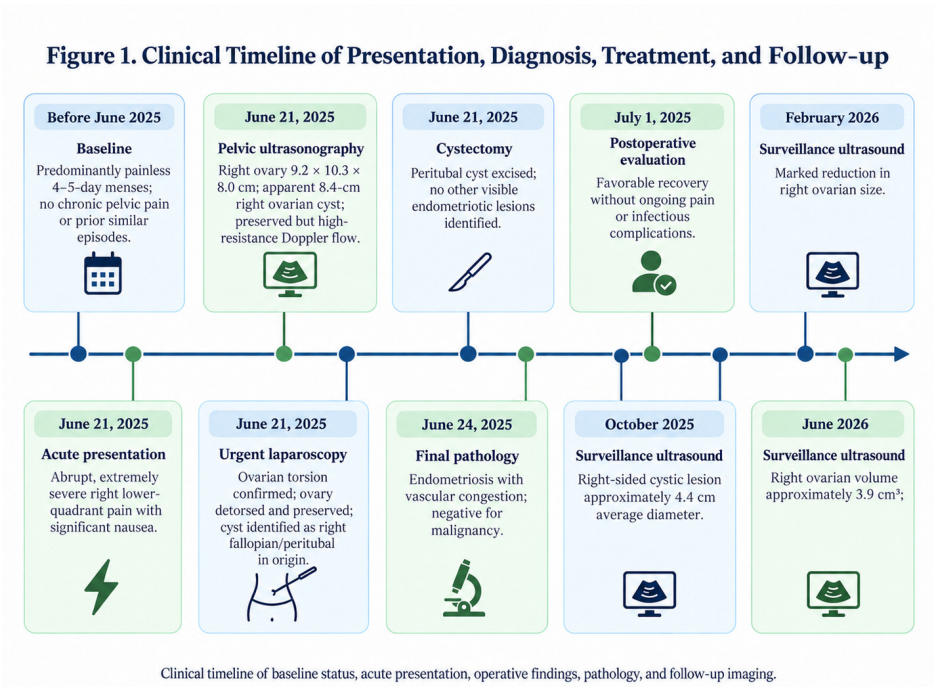


Figure 2. Clinical course and imaging findings.

clarify the relationship of a cyst to the ovary and fallopian tube.^{7,8}

The pathologic finding supports endometriosis involving the excised peritubal specimen, but it does not, by itself, prove that endometriosis caused the torsion. The available gross and final pathologic descriptions also do not establish whether the lesion meets a more specific histologic definition of an endometrioma. The distinction matters because peritubal cysts of other causes may also be associated

with torsion.⁷ Wenger and colleagues reported a tubal endometrioma associated with torsion of the fallopian tube in an 18-year-old; in contrast, the present operative account documents ovarian torsion and a separately excised peritubal lesion.⁹ The conclusion supported here is therefore an association between ovarian torsion and an excised peritubal cyst containing endometriosis, rather than a demonstrated causal mechanism.

Follow-up interpretation requires similar caution. The October 2025 scan documented a right ovarian cyst several months after excision, whereas subsequent scans reported much smaller ovarian dimensions. Because the identity and course of the cyst were incompletely characterized in the available follow-up records, normal ovarian volume cannot be equated with proven cyst resolution or absence of recurrent endometriosis. Continued gynecologic assessment is important to establish the nature of any recurrent adnexal lesion and address symptoms if they arise.¹⁰

The principal limitations are the incomplete availability of initial vital signs and laboratory data, the lack of full subsequent sonographic descriptions, and the absence of detailed microscopic pathology findings in the source material. These constraints limit inferences about recurrence, staging, and causation, but do not diminish the documented concurrence of torsion and histologically identified peritubal endometriosis.

3. CONCLUSION

Endometriosis may be discovered unexpectedly in adolescents undergoing surgery for acute adnexal pathology, even when dysmenorrhea and chronic pelvic pain are absent. This case also reinforces two practical points: preserved Doppler flow does not rule out ovarian torsion, and ultrasonography may not precisely locate a large adnexal cyst. Histopathology was essential to identifying endometriosis in the excised peritubal tissue.

4. PATIENT PERSPECTIVE

Before this event, the patient had never considered her menstrual cycles abnormal and had experienced no significant menstrual or pelvic pain. The abrupt transition from routinely painless periods to severe abdominal pain requiring emergency surgery made the later diagnosis of endometriosis particularly unexpected. Learning that endometriosis had been present despite an absence of the symptoms commonly associated with the condition substantially changed her understanding of how the disease can present in adolescents.

SUPPLEMENTARY MATERIALS

Supplementary Appendix 1: CARE Checklist (PDF)
Completed CARE guidelines checklist for clinical case reporting.

.....

ETHICS APPROVAL AND CONSENT FOR PUBLICATION

Written informed consent was obtained from the patient and her parent/legal guardian for the publication of this case report and any accompanying images. Institutional Review Board (IRB) approval was not required by Brown University, as single-patient case reports describing standard clinical care do not meet the federal definition of human subject research under 45 CFR 46. This study was conducted in accordance with the ethical standards of the Declaration of Helsinki.

DATA AVAILABILITY STATEMENT

De-identified clinical data are available from the corresponding author upon reasonable request, subject to patient privacy constraints.

COMPETING INTERESTS

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

FUNDING

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

AUTHORS' CONTRIBUTIONS

SK and LG drafted the manuscript together.

ACKNOWLEDGEMENTS

None

Submitted: October 07, 2026 EDT. Accepted: October 12, 2026 EDT. Published: October 15, 2026 EDT.



This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CCBY-4.0). View this license's legal deed at <http://creativecommons.org/licenses/by/4.0> and legal code at <http://creativecommons.org/licenses/by/4.0/legalcode> for more information.

REFERENCES

1. Gagnier JJ, Kienle G, Altman DG, et al. The CARE guidelines: consensus-based clinical case reporting guideline development. *BMJ Case Rep*. 2013;2013:bcr2013200800. doi:[10.1136/bcr-2013-200800](https://doi.org/10.1136/bcr-2013-200800)
2. Shim JY. Dysmenorrhea and endometriosis in adolescents. *Obstet Gynecol Clin North Am*. 2024;51(4):651-661. doi:[10.1016/j.ogc.2024.08.003](https://doi.org/10.1016/j.ogc.2024.08.003)
3. Hirsch M, Dhillon-Smith R, Cutner AS, Yap M, Creighton SM. The prevalence of endometriosis in adolescents with pelvic pain: a systematic review. *J Pediatr Adolesc Gynecol*. 2020;33(6):623-630. doi:[10.1016/j.jpag.2020.07.011](https://doi.org/10.1016/j.jpag.2020.07.011)
4. American College of Obstetricians and Gynecologists. Adnexal torsion in adolescents: ACOG Committee Opinion No. 783. *Obstet Gynecol*. 2019;134(2):e56-e63. doi:[10.1097/AOG.0000000000003373](https://doi.org/10.1097/AOG.0000000000003373)
5. Bronstein ME, Pandya S, Snyder CW, Shi Q, Muensterer OJ. A meta-analysis of B-mode ultrasound, Doppler ultrasound, and computed tomography to diagnose pediatric ovarian torsion. *Eur J Pediatr Surg*. 2015;25(1):82-86. doi:[10.1055/s-0034-1387946](https://doi.org/10.1055/s-0034-1387946)
6. Servaes S, Zurakowski D, Laufer MR, Feins N, Chow JS. Sonographic findings of ovarian torsion in children. *Pediatr Radiol*. 2007;37(5):446-451. doi:[10.1007/s00247-007-0429-x](https://doi.org/10.1007/s00247-007-0429-x)
7. Lampl BS, King CR, Attaran M, Feldman MK. Adolescent endometriosis: clinical insights and imaging considerations. *Abdom Radiol (NY)*. 2025;50(10):4844-4853. doi:[10.1007/s00261-025-04870-7](https://doi.org/10.1007/s00261-025-04870-7)
8. Thakore SS, Chun MJ, Fitzpatrick K. Recurrent ovarian torsion due to paratubal cysts in an adolescent female. *J Pediatr Adolesc Gynecol*. 2012;25(4):e85-e87. doi:[10.1016/j.jpag.2011.10.012](https://doi.org/10.1016/j.jpag.2011.10.012)
9. Wenger JM, Soave I, Lo Monte G, Petignat P, Marci R. Tubal endometrioma within a twisted fallopian tube: a clinically complex diagnosis. *J Pediatr Adolesc Gynecol*. 2013;26(1):e1-e4. doi:[10.1016/j.jpag.2012.06.005](https://doi.org/10.1016/j.jpag.2012.06.005)
10. Becker CM, Bokor A, Heikinheimo O, et al. ESHRE guideline: endometriosis. *Hum Reprod Open*. 2022;2022(2):hoac009. doi:[10.1093/hropen/hoac009](https://doi.org/10.1093/hropen/hoac009)

SUPPLEMENTARY MATERIALS

Supplementary Appendix 1: CARE Checklist

Download: <https://academic-med-surg.scholasticahq.com/article/172338-peritubal-endometriosis-discovered-during-surgery-for-ovarian-torsion-in-an-adolescent-without-dysmenorrhea-a-case-report/attachment/370926.pdf>
