

Rectus Abdominis Muscle Endometriosis Developing in A Post-Cesarean Scar: an Uncommon Presentation

Somri Bilel*, Hannachi Mohamed Amine, Samaali Khaoula, Zangar Salim, Jelloul Rayhane, Mizouni Rihab, Bamri Mohamed Aziz, Malek Monia and Neji Khaled

Maternity center of Tunis, Tunisia

*Corresponding author

Somri B, Maternity center of Tunis, Tunisia.

Received: February 25, 2026; Accepted: March 04, 2026; Published: March 11, 2026

ABSTRACT

Introduction: Abdominal wall endometriosis (AWE) is a rare form of extrapelvic endometriosis, often secondary to obstetric or gynecologic surgery, particularly cesarean section. It presents with cyclical pain and may mimic other abdominal wall pathologies.

Case Presentation: We report the case of a 39-year-old woman with a history of three cesarean deliveries and cholecystectomy, who presented with cyclic periumbilical pain near her cesarean section scar. Ultrasound revealed two heterogeneous hyperechoic masses adjacent to the scar. MRI demonstrated a 72 × 40 × 16 mm endometriotic lesion within the left rectus abdominis muscle invading the superficial aponeurosis and subcutaneous tissue, while sparing the deep aponeurosis and intra-abdominal organs.

Intervention and Outcome: The diagnosis of scar endometriosis was made. Surgical excision was planned for definitive treatment.

Conclusion: Abdominal wall endometriosis should be suspected in women with cyclical pain at or near a cesarean section scar. MRI plays a crucial role in diagnosis and preoperative planning.

Keywords: Endometriosis, Abdominal Wall Endometriosis, Cesarean Section, Scar Endometriosis

Introduction

Abdominal wall endometriosis (AWE) is an uncommon entity, accounting for 0.03%–1.5% of all cases of endometriosis [1-3]. It typically develops after obstetric or gynecological surgery, most often cesarean section, due to iatrogenic implantation of endometrial tissue in the abdominal wall incision [2-5].

Clinically, AWE manifests as localized, cyclical pain that intensifies during menstruation, often with a palpable mass near the surgical scar [1-6]. Because of its nonspecific presentation, it is frequently misdiagnosed as hernia, lipoma, hematoma, abscess, or desmoid tumor [5-7].

We present a case of abdominal wall endometriosis involving the rectus abdominis muscle after cesarean section.

Case Presentation

A 39-year-old woman (G4P3) presented with pelvic and periumbilical pain, progressively worsening over several months

and exacerbated during menstruation. Her past surgical history included:

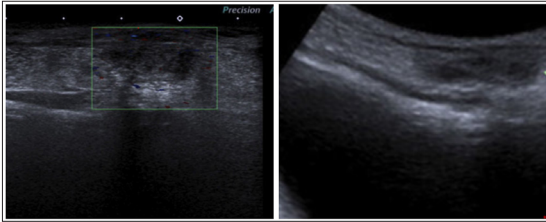
- Cholecystectomy in 2022
- Three cesarean sections

She was using an intrauterine device (IUD) for contraception. She denied gastrointestinal, urinary, or constitutional symptoms. There was no relevant family history.

On examination, there was localized tenderness over the left periumbilical region adjacent to the cesarean section scar. No visible swelling or palpable mass was detected. There were no signs of infection or herniation.

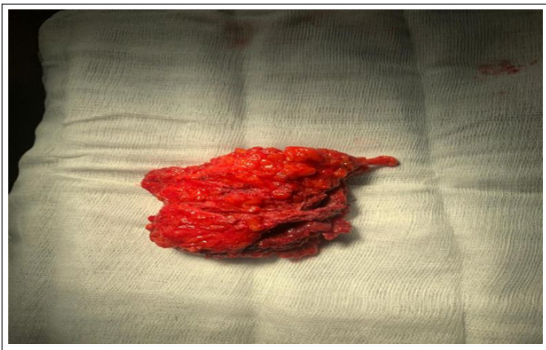
Pelvic ultrasonography showed two heterogeneous hyperechoic masses, the largest measuring 41 × 19 mm, adjacent to the cesarean scar. Pelvic MRI revealed a well-circumscribed intramuscular lesion within the left rectus abdominis muscle, measuring approximately 72 × 40 × 16 mm, with signal characteristics compatible with endometriosis (T1 and T2 hyperintense areas due to hemorrhagic content) [7-9].

Citation: Somri Bilel, Hannachi Mohamed Amine, Samaali Khaoula, Zangar Salim, Jelloul Rayhane, et al. Rectus Abdominis Muscle Endometriosis Developing in A Post-Cesarean Scar: an Uncommon Presentation. Open Access J Gyneco Obstet Res. 2026. 4(1): 1-3. DOI: doi.org/10.61440/JGOR.2026.v4.66



The lesion extended to the superficial aponeurosis and subcutaneous fat, sparing the deep aponeurosis and intra-abdominal organs. Based on clinical presentation and imaging, a diagnosis of abdominal wall (scar) endometriosis involving the left rectus abdominis muscle was made.

Given the size and depth of invasion, surgical excision was recommended as definitive management [1-8]. Adjunctive hormonal therapy (e.g., GnRH analogs or progestins) was discussed as a possible preoperative measure to reduce lesion size [3]. The patient was referred to a surgical team for planned excision.



She continues to receive symptomatic management and hormonal suppression while awaiting definitive surgery. Long-term follow-up is planned to assess for recurrence or persistence of symptoms.

Discussion

Abdominal wall endometriosis, though rare, is an increasingly recognized postoperative complication of cesarean delivery [1-4]. The predominant mechanism involves iatrogenic transplantation of viable endometrial cells during uterine closure, which later proliferate under hormonal influence [2-5].

The time from surgery to symptom onset may range from a few months to several years [4-11]. Cyclic scar-related pain is the hallmark feature, with or without a palpable nodule [1-6].

Ultrasound provides an initial assessment but may be nonspecific. MRI offers superior soft-tissue characterization, revealing the lesion's extent, internal hemorrhagic foci, and relation to fascial planes key data for preoperative planning [7-9]. Differential diagnoses include abdominal wall hernia, lipoma, desmoid tumor, hematoma, abscess, and metastatic deposits [2-10].

In this case, the cyclic nature of pain and the MRI appearance with hemorrhagic foci within a well-defined intramuscular mass favored endometriosis over other possibilities [9].

Surgical excision with negative margins remains the gold-standard treatment, offering both diagnostic confirmation and

symptom resolution [1-8]. Hormonal therapy may alleviate pain but is rarely curative and carries a risk of recurrence after discontinuation [3,4].

Prognosis is excellent following complete excision, although recurrences can occur if residual endometriotic tissue remains [7-13]. Prompt recognition is crucial to prevent misdiagnosis and delayed management [2-5].

Conclusion

Abdominal wall endometriosis should be considered in women presenting with cyclic pain localized to a cesarean scar [1,2]. MRI is invaluable for diagnosis and surgical planning [7-9]. Definitive management involves wide local excision with negative margins to prevent recurrence [1-10].

Patient Perspective

The patient expressed relief upon receiving a clear diagnosis explaining her chronic cyclical pain. She understood the surgical treatment plan and appreciated the multidisciplinary approach.

Informed Consent

Written informed consent was obtained from the patient for publication of this case and accompanying images.

Acknowledgements

None.

Conflicts of Interest

The authors declare no conflict of interest.

Funding

No external funding was received.

References

- Zhang J, Liu X, Sun J, Li Z. Cesarean scar endometriosis: presentation, diagnosis, and management. *Int J Gynaecol Obstet.* 2020. 150: 333-339.
- Horton JD, Dezee KJ, Ahnfeldt EP, Wagner M. Abdominal wall endometriosis: a surgeon's perspective and review of 445 cases. *Am J Surg.* 2008. 196: 207-212.
- Rindos NB, Mansuria SM. Diagnosis and management of abdominal wall endometriosis: a systematic review and clinical recommendations. *Obstet Gynecol Surv.* 2017. 72: 116-122.
- Blanco RG, Parithivel VS, Shah AK, Gumbs MA, Schein M, Gerst PH. Abdominal wall endometriomas. *Am J Surg.* 2003. 185: 596-598.
- Patterson GK, Winburn GB. Abdominal wall endometriomas: report of eight cases. *Am Surg.* 1999. 65: 36-39.
- Bumpers HL, Butler KL, Best IM. Endometriosis of the abdominal wall. *Am J Obstet Gynecol.* 2002. 187: 1709-1710.
- Gidwaney R, Badler RL, Yam BL, Hines JJ, Alexeeva V, et al. Endometriosis of abdominal and pelvic wall scars: multimodality imaging findings, pathologic correlation, and radiologic mimics. *Radiographics.* 2012. 32: 2031-2043.
- Bektaş H, Bilsel Y, Sari YS, Ersöz F, Koç O, et al. Abdominal wall endometrioma: a 10-year experience and brief review of the literature. *J Surg Res.* 2010. 164: 77-81.

9. Ding Y, Zhu J. A retrospective review of abdominal wall endometriosis in Shanghai, China. *Int J Gynaecol Obstet.* 2013. 121: 41-44.
10. Victory R, Diamond MP, Johns DA. Villar's nodule: a case report and systematic literature review of endometriosis externa of the umbilicus. *J Minim Invasive Gynecol.* 2007. 14: 23-32.
11. Çelik M, Acar A, Kirişçi M, Aydoğdu D, Yüceyar L. Abdominal wall endometriosis after cesarean section: local excision and reconstruction with polypropylene mesh. *Can J Surg.* 2009. 52: 95-96.
12. Redwine DB. Abdominal wall endometriosis: a review of 30 cases. *J Reprod Med.* 2002. 47: 29-32.
13. Steck WD, Helwig EB. Cutaneous endometriosis. *Clin Obstet Gynecol.* 1965. 8: 373-383.