

A Monthly Whisper from a Healed Wound: Recurrent Perineal Endometriosis

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Abstract

Background: Scar endometriosis is an uncommon manifestation of extra-pelvic endometriosis, most often seen at abdominal or perineal surgical sites. Episiotomy scar involvement is particularly rare, and recurrence after prior excision is even less frequently documented, especially when adjacent to critical structures such as the anal sphincter.

Case Presentation: We report the case of a 37-year-old multiparous woman with cyclical perineal pain and swelling over her episiotomy scar. She had previously undergone surgical excision and short-term hormonal therapy for histologically proven perineal endometriosis. One year later, symptoms recurred.

Imaging with MRI demonstrated a recurrent lesion infiltrating the external anal sphincter. Wide local excision with sphincter preservation was performed. Histopathology reconfirmed endometriosis with free surgical margins. Postoperatively, the patient made an uneventful recovery and remained symptom-free on follow-up.

Conclusion: This case highlights the diagnostic challenges posed by recurrent perineal endometriosis. The constellation of cyclical pain and scar swelling should prompt consideration of this rare diagnosis. MRI plays a pivotal role in operative planning. Complete excision remains the cornerstone of management, as recurrence is strongly associated with incomplete primary resection.

Keywords: Perineal endometriosis, episiotomy scar, recurrent scar endometriosis, cyclical perineal pain, surgical excision

INTRODUCTION

Endometriosis is traditionally defined as the ectopic presence of endometrial glands and stroma outside the uterine cavity. While its pelvic presentation is well-documented, extra-pelvic variants, though rare, may appear in surgical scars – most commonly following cesarean sections or episiotomies. It is estimated that scar endometriosis represents <1% of all endometriosis cases (Horton et al., 2008; Zhang et al., 2019). Episiotomy-site endometriosis was first documented in the early 20th century and typically manifests as cyclical perineal pain, swelling, and occasionally bleeding from the scar (Koger et al., 1993). Despite its characteristic features, misdiagnosis is frequent; conditions such as suture granuloma, abscess, or neoplasia may mimic presentation.

Recurrence following surgical excision, particularly with anal sphincter involvement, is exceedingly rare. This report details a case of recurrent perineal scar endometriosis, underscoring the importance of vigilant clinical suspicion, thorough imaging, and precise surgical intervention.

Case Report

A 37-year-old woman (P2L2A2) presented with a 12-month history of recurrent, cyclical perineal pain localized to the site of her prior left mediolateral episiotomy. The pain, reported as 7/10 on the **Visual Analog Scale (VAS)**, intensified during menstruation and was aggravated by sitting or defecation, but subsided in the intermenstrual phase. She denied bleeding per rectum, bowel incontinence, or systemic symptoms.

Her obstetric history included two term vaginal deliveries (2012, 2020) with episiotomies on the same side. In 2024, she underwent excision of a painful perineal mass at this site, and histology confirmed scar endometriosis. She received postoperative dienogest for 3 months, after which her symptoms abated temporarily but recurred within a year.

Clinical Examination: A firm, indurated, mildly tender 2 × 3 cm nodule was palpated at the episiotomy scar. Per rectal examination revealed the lesion adjacent to, but not infiltrating, the anal sphincter.



Figure 1. Intraoperative photograph showing an irregular, nodular lesion at the left episiotomy scar consistent with recurrent perineal endometriosis, abutting the external anal sphincter

Radiology:

• MRI pelvis:

An ill defined T2 heterogeneous (predominantly hypointense) lesion measuring 1.7 x 2.3 cm with spiculated margins are noted in perineum posterior to the caudal end of vagina and anterior to the anal canal in left paramedian location. Focally involving the external anal sphincter at 1 to 2 o'clock position. Internal anal sphincter is normal. Mild surrounding edema is noted.



Figure 2. MRI pelvis showing an ill-defined T2 heterogeneous lesion (arrow) in the left paramedian perineal region, posterior to the vagina and anterior to the anal canal, with spiculated margins. The lesion abuts the external anal sphincter at the 1-2 o'clock position. MR fistulogram demonstrated a multiloculated fibrotic lesion measuring 3.3 x 2.3 x 1.7 cm with loss of fat planes near the external sphincter.

MR fistulogram:

A Conglomerate T2/TI/STIR hyper intense lesions, collectively measuring 3.3 x 2.3 x 1.7 cm (TRx CCxAP) noted in the perineum postero-inferior to the caudal end of vagina and anterior to the anal canal from 11 to 2 o'clock position. T2 hypo intense scar tissue with spiculated margins seen within and adjacent to the above mentioned lesion. On GRE few foci of blooming within.

Posteriorly there is loss of fat planes with external anal sphincter from 11 to 2 o'clock Internal anal sphincter is normal.



Figure 3. MRI fistulogram STIR image demonstrating a conglomerate multiloculated hyperintense lesion with loss of fat planes adjacent to the external anal sphincter (white arrow).

Magnetic resonance imaging of the pelvis revealed a spiculated, hyperintense lesion measuring 1.7 x 2.3 cm posterior to the vaginal wall and anterior to the anal canal, involving the external anal.

Surgical Approach: A wide local excision was undertaken under general anesthesia. A 3 × 4 cm mass was excised with adequate margins while preserving the external sphincter. Hemostasis was secured, and the wound was closed in layers.

Pathology: The specimen revealed fibrocollagenous stroma harboring endometrial glands and stroma, consistent with recurrent endometriosis. Margins were free of disease. No evidence of malignancy was observed.

Follow-up: At 3 months, the patient remained asymptomatic, with good wound healing and preserved continence. Longer follow-up has any recurrence.

DISCUSSION:

Scar endometriosis is an iatrogenic condition commonly following cesarean section or episiotomy, caused by mechanical implantation of endometrial tissue into surgical wounds. While cesarean scar endometriosis is more frequently reported, episiotomy scar involvement is rare, accounting for less than 0.1% of endometriosis cases (Horton et al., 2008; Zhang et al., 2019).

Clinically, the classic triad comprises cyclical pain, swelling at the scar site, and prior surgical history. However, nonspecific symptoms lead to frequent misdiagnosis as suture granuloma or abscess. MRI remains the gold standard imaging modality, providing clear delineation of lesion extent and its relationship to surrounding structures such as the anal sphincter (Coutinho et al., 2011).

The risk of recurrence correlates strongly with incomplete excision, especially in lesions infiltrating deeper planes. Hormonal therapy can offer symptomatic relief but does not replace surgical treatment (Giudice, 2010).

Treatment Options and Prevention

Medical Management:

Medical therapy aims primarily at symptom relief by suppressing the hormonal stimulus to ectopic endometrial tissue. Common agents include hormonal contraceptives, progestins (such as dienogest), gonadotropin-releasing hormone (GnRH) analogs, and danazol. Although these therapies may reduce lesion size and alleviate cyclical pain, they generally do not eradicate scar endometriosis or prevent recurrence after incomplete excision. Therefore, medical therapy is best reserved as an adjunct or for patients unfit for surgery (Giudice, 2010).

Surgical Management:

Wide local excision with clear margins remains the gold standard treatment for scar endometriosis. Surgery aims to completely remove the lesion, including any deep or infiltrative components. Preservation of adjacent functional structures, such as the anal sphincter in perineal cases, is crucial to avoid morbidity like fecal incontinence. Preoperative imaging with MRI is indispensable for surgical planning and to assess the extent of infiltration (Coutinho et al., 2011). In cases with deep resection compromising sphincter integrity, simultaneous reconstructive procedures may be required.

Prevention: Preventive strategies focus on minimizing the risk of iatrogenic implantation of endometrial cells during obstetric or gynecologic procedures. These include meticulous surgical technique such as thorough irrigation and cleansing of uterine incisions before closure, avoiding contact of endometrial tissue with the wound edges, and using separate instruments for uterine and abdominal wall closure during cesarean sections or episiotomies. Educating surgeons on the risk of scar endometriosis and early recognition of symptoms can also contribute to reduced incidence and prompt management (Horton et al., 2008).

Comparison of Reported Cases of Perineal/Episiotomy Scar Endometriosis with Recurrence:

Author & Year	Site of Lesion	Recurrence	Sphincter Involvement	Management	Outcome
Vellido-Cotelo, 2016	Perineal scar	No	No	Wide excision	Disease-free

Zhang et al., 2019 (review)	Cesarean scar (198 pts)	~4% recurrence	Not applicable	Excision ± medical therapy	Good outcomes
Shatney et al., 1993	Scar sites	Few reported	Rare	Excision	Variable
Present Case (2025)	Episiotomy scar	Yes	Yes, external sphincter abutment	Excision with sphincter preservation	Disease-free 3 months

CONCLUSION

Episiotomy scar endometriosis, though rare, should always be suspected in women with cyclical perineal pain and scar swelling. **MRI is indispensable** in surgical planning, particularly when there is potential anal sphincter involvement. Recurrent disease emphasizes the importance of complete excision with adequate margins at initial surgery. Long-term follow-up is essential, as recurrence—even years later—may compromise patient quality of life.

REFERENCES

1. Giudice LC. Clinical practice. Endometriosis. *N Engl J Med*. 2010;362(25):2389–2398.
2. Zhang J, Liu X, Li F, et al. Cesarean scar endometriosis: Presentation of 198 cases. *BMC Women's Health*. 2019;19(1):14.
3. Horton JD, DeZee KJ, Ahnfeldt EP, Wagner M. Abdominal wall endometriosis: A surgeon's perspective. *Am J Surg*. 2008;196(2):207–212.
4. Koger KE, Shatney CH, Hodge K, McClenathan JH. Surgical scar endometrioma. *Surg Gynecol Obstet*. 1993;177(3):243–246.
5. Coutinho A Jr, et al. MR imaging in deep pelvic endometriosis. *Radiographics*. 2011;31(2):549–567.
6. Vellido-Cotelo R, et al. Perineal endometriosis: Report of two cases. *Int J Surg Case Rep*. 2016;29:34–37.
7. Steck WD, Helwig EB. Cutaneous endometriosis. *JAMA*. 1965;191(2):167–170.
8. Nisolle M, Donnez J. Peritoneal endometriosis, ovarian endometriosis, and deep endometriotic nodules: Different entities or different phases of the same disease? *Fertil Steril*. 1997;68(4):585–596.