HIDDEN IN THE SCAR

A Rare Case of Vulvar Endometriosis Mimicking Bartholin's Gland Cyst at an Episiotomy Site

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OVERVIEW

- Introduction: Endometriosis
- Case summary
- Discussion
- Conclusions
- References

ENDOMETRIOSIS

ENDOMETRIOSIS

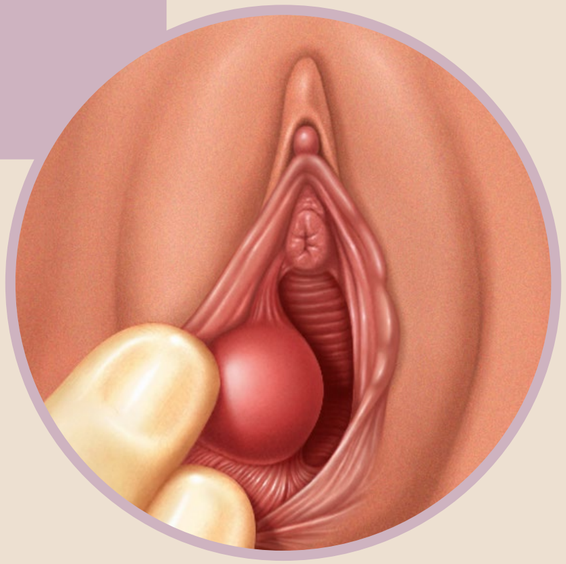
- chronic, estrogen-dependent inflammatory condition
- affects approximately **10%** of the female population
- presence of **endometrial glands and stroma** outside the uterine cavity
- pelvic pain, dysmenorrhea, dyspareunia, and infertility
- most commonly affects pelvic structures such as: the ovaries, fallopian tubes, uterosacral ligaments, and pouch of Douglas

ENDOMETRIOSIS

- **extrapelvic manifestations** - though rare - have been documented in nearly every organ system, including the gastrointestinal tract, lungs, and cutaneous tissues
- vulvar endometriosis is one of the rarest presentations, accounting for **less than 0.5% of all endometriosis cases** , and is frequently misdiagnosed due to its nonspecific and often deceptive clinical presentation
- scar endometriosis - after cesarean sections and episiotomies - is a recognized but underreported entity
- most scar endometriosis occurs within the abdominal wall post-cesarean

ENDOMETRIOSIS

Clinicians often misattribute the symptoms - such as vulvar swelling, cyclical pain, or dyspareunia - to more common conditions like **Bartholin's gland cysts, abscesses, or epidermal inclusion cysts**



Source: Mayo Foundation for Medical Education and Research.

CASE SUMMARY

CASE SUMMARY

A 25-year-old gravida 3 para 2 presented to the gynecology clinic for assessment and management of a **right -sided vulvar mass** noted after an emergency department visit for cyclical right vulvar swelling that became more prominent during menses and lasted up to one week afterwards.

CASE SUMMARY

The patient has a history of irregular menses, longstanding dysmenorrhea, and both deep and superficial dyspareunia. She has had one cesarean section followed by a vaginal birth after cesarean (VBAC) with a right mediolateral episiotomy.

CASE SUMMARY

Surgical history includes right salpingectomy and right ovarian cystectomy for an ectopic pregnancy, and interval female sterilization after completing childbearing. She was previously diagnosed and treated for syphilis. She denied abnormal vaginal or vulvar discharge and denied abdominal or pelvic pain.

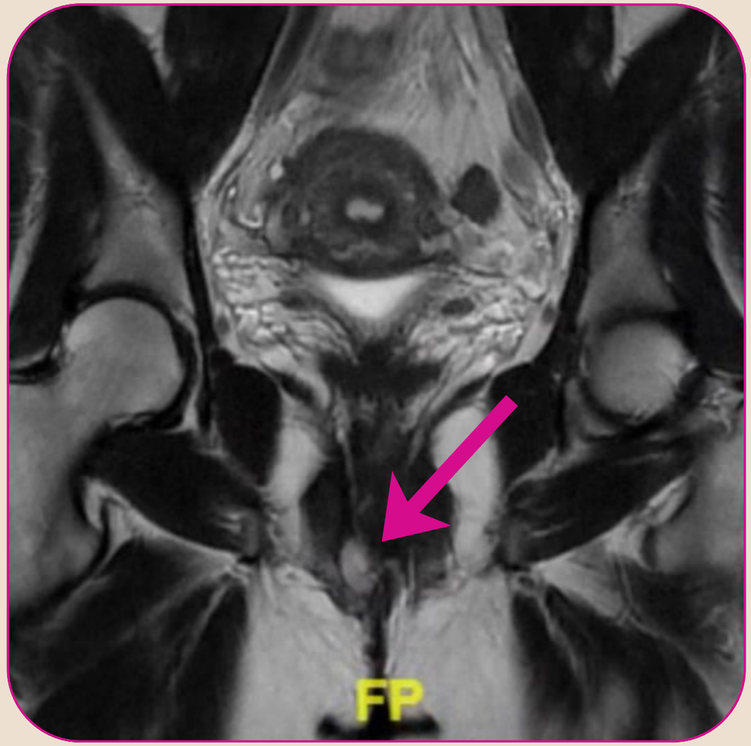
CASE SUMMARY

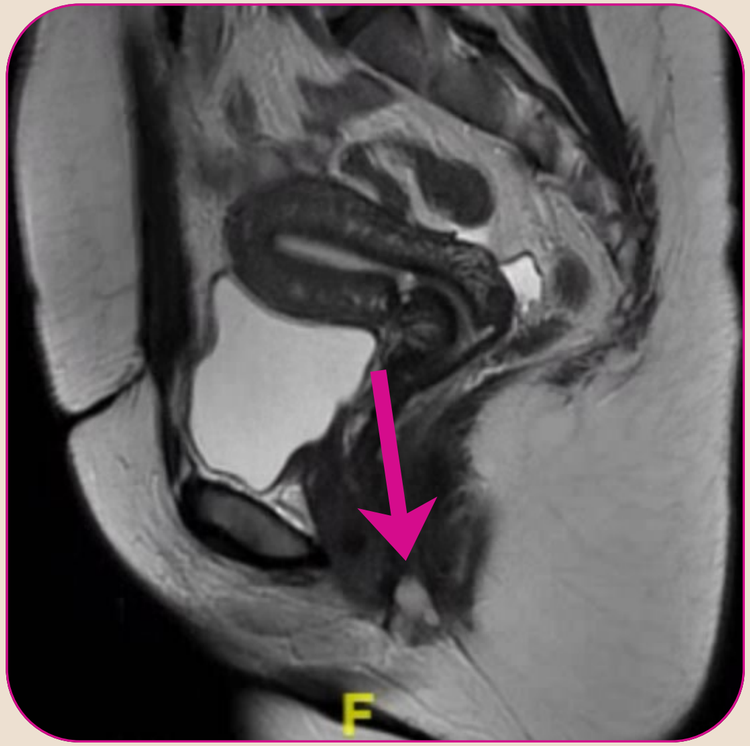
Gynecology was consulted for a **suspected Bartholin gland cyst** . The patient reported a painful right vulvar lump present for more than a year. It had been treated as an **infected epidermoid cyst** with trimethoprim - sulfamethoxazole, sitz baths, and chlorhexidine soap, yielding only partial symptomatic improvement with no change in size or tenderness during the menstrual cycle.

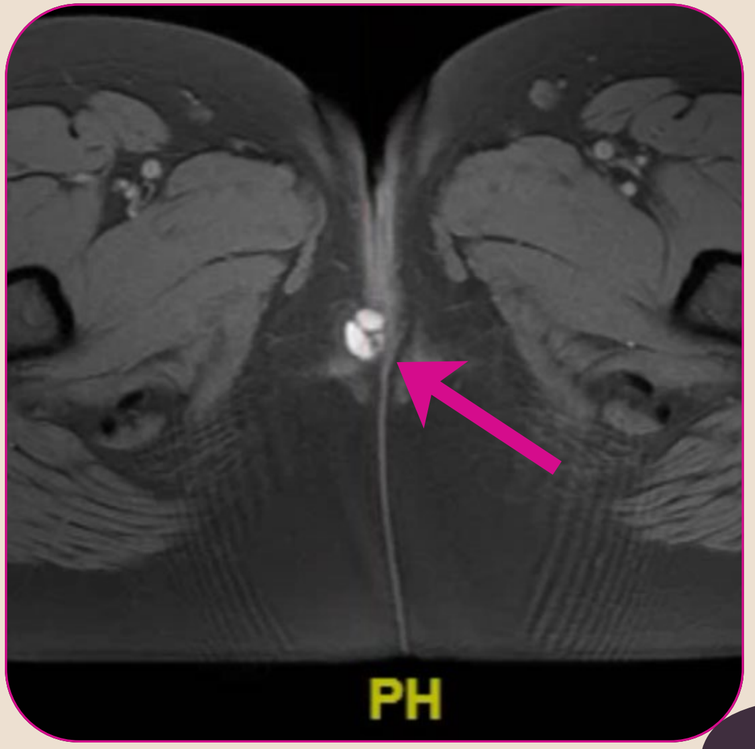
CASE SUMMARY

MRI showed a **1.3 × 1.5 × 1.6 cm complex cyst** in the right vaginal wall described as “likely Bartholin’s cyst,” dilated bilateral gonadal veins suggestive of pelvic congestion, and a small amount of free pelvic fluid; no ovarian mass or other signs of endometriosis were noted.

CASE SUMMARY





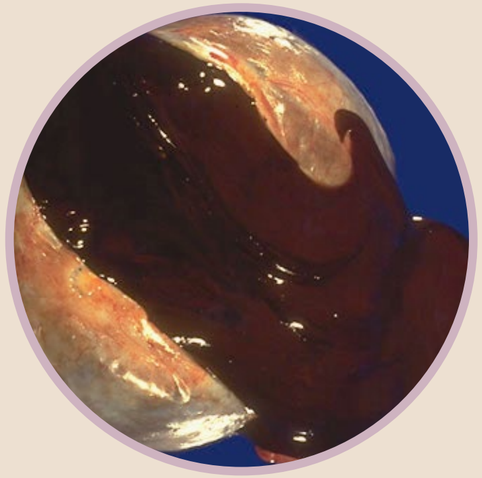


CASE SUMMARY

At outpatient follow -up, the mass measured 2× 1.5 cm, was well demarcated and firm, and lay subcutaneously in the perineum at 7 o’clock to the introitus, along the scar of the previous right mediolateral (RML) episiotomy, about 1 cm distal to the fourchette.

CASE SUMMARY

Aspiration yielded a small amount of **chocolate -like fluid** , raising suspicion for an endometriotic deposit.



Source: Webpathology

Combined oral contraceptives were started for **ovulation suppression** . Surgical excision was offered, but the patient was lost to follow-up.

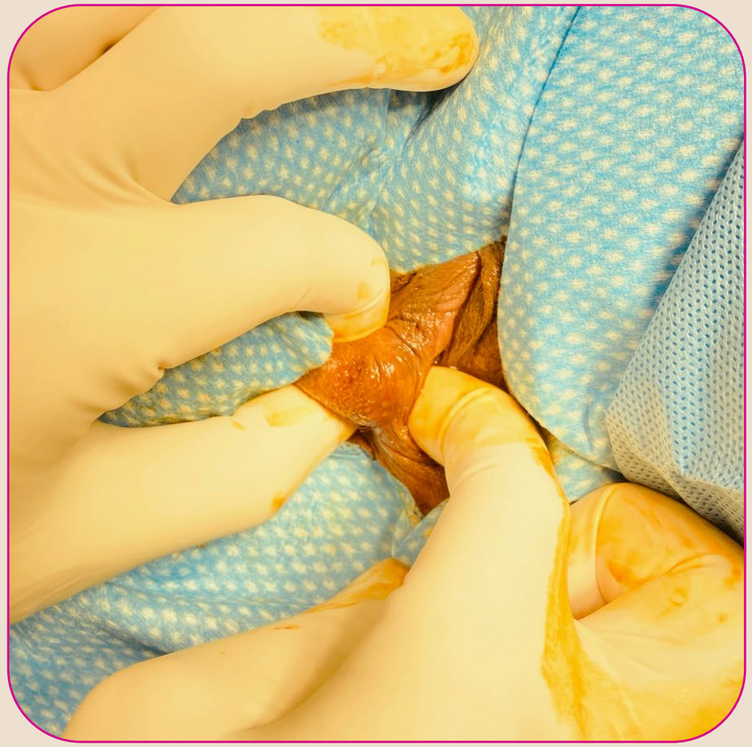
CASE SUMMARY

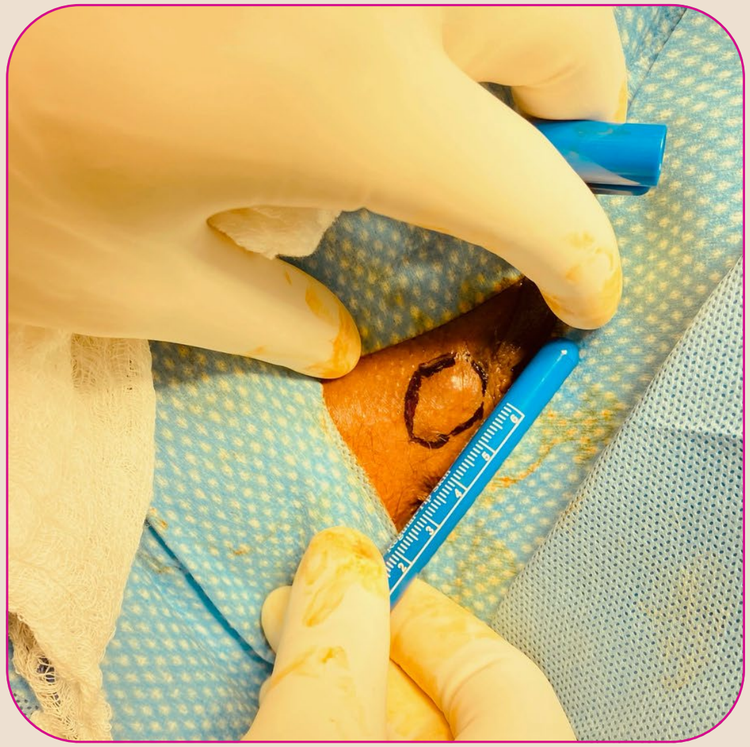
Four months later, she returned and elected **surgical management** . After informed consent—including discussion of pain, bleeding, infection, wound dehiscence, and possible lack of symptom relief—she underwent scheduled excision in March 2025.

CASE SUMMARY

1

Under general and local anesthesia (lidocaine with epinephrine), examination under anesthesia confirmed a **2 × 1.5 cm firm, oval, well -demarcated mass** at 7 o’clock to the introitus, along the previous episiotomy scar.

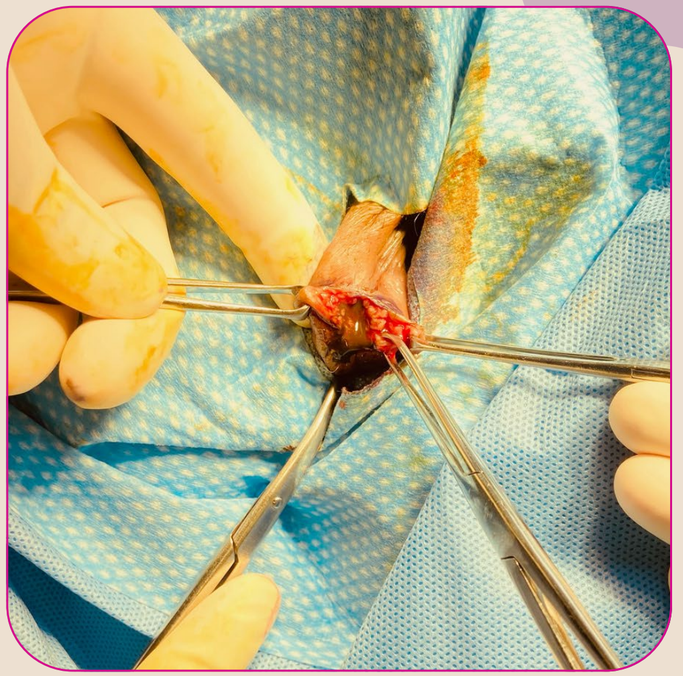




CASE SUMMARY

2

Allis clamps elevated the skin, and a #15 scalpel opened the lesion. A small amount of **thick black -brown** (“chocolate”) fluid was expressed. No discrete capsule was seen.

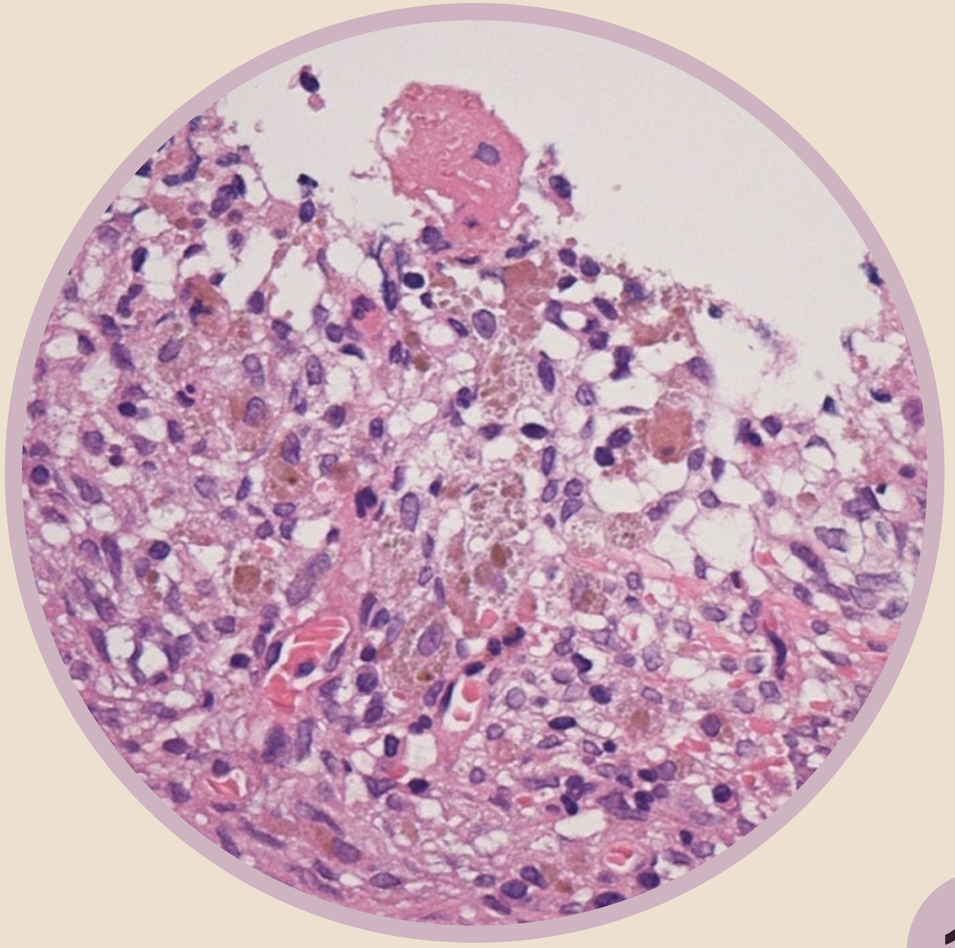


3

A 1–2 cm nodular area of fat corresponding to the lesion was sharply excised. The cavity was closed in layers with 2-0 Vicryl to obliterate dead space; skin was approximated with running 3-0 Monocryl subcuticular sutures. Hemostasis was adequate and estimated blood loss minimal.

CASE SUMMARY

Revealed endometrial glands and stroma with **hemosiderin -laden macrophages** , confirming vulvar endometriosis.



Resource: Pathology Core Pictures
https://pathology.or.jp/corepicturesEN/15/c02/07.html

CASE SUMMARY

Two weeks postop, the right vulvar area was healing well with no infection; a 1 × 0.5 cm residual swelling was noted. The patient was advised to continue sitz baths and return in three months.

CASE SUMMARY

At the three-month visit, the patient reported **resolution of cyclical swelling and pain** . The examination revealed a well-healed scar with minimal subcutaneous irregularity. She was advised to return in three months for surveillance and was counseled on the risk of recurrence and options for medical or repeat surgical management.

DISCUSSION

DISCUSSION

- Extrapelvic endometriosis constitutes a small but clinically significant subset.
- Cutaneous and subcutaneous endometriosis account for**less than 1%** of cases and most often present in surgical scars, particularly after cesarean sections or laparotomies.
- Endometriosis involving the vulva—especially within a prior episiotomy scar - is exceedingly rare, with **fewer than 30 well -documented cases** in the literature.
- The pathogenesis of vulvar endometriosis remains incompletely understood, but several hypotheses have been proposed.

DISCUSSION

- direct mechanical transplantation of endometrial cells during obstetric or gynecological procedures
- during episiotomy or vaginal delivery, endometrial cells from the uterus or lower genital tract may be introduced into the disrupted perineal tissues, where they implant and, under **continued estrogen stimulation** , proliferate
- strong **temporal relationship** between obstetric trauma and onset of symptoms in reported cases

DISCUSSION

- **pluripotent** mesothelial cells **differentiate** into endometrial tissue under hormonal or immunological influences, and lymphatic or haematogenous spread
- less commonly invoked in isolated vulvar lesions without pelvic disease

DISCUSSION

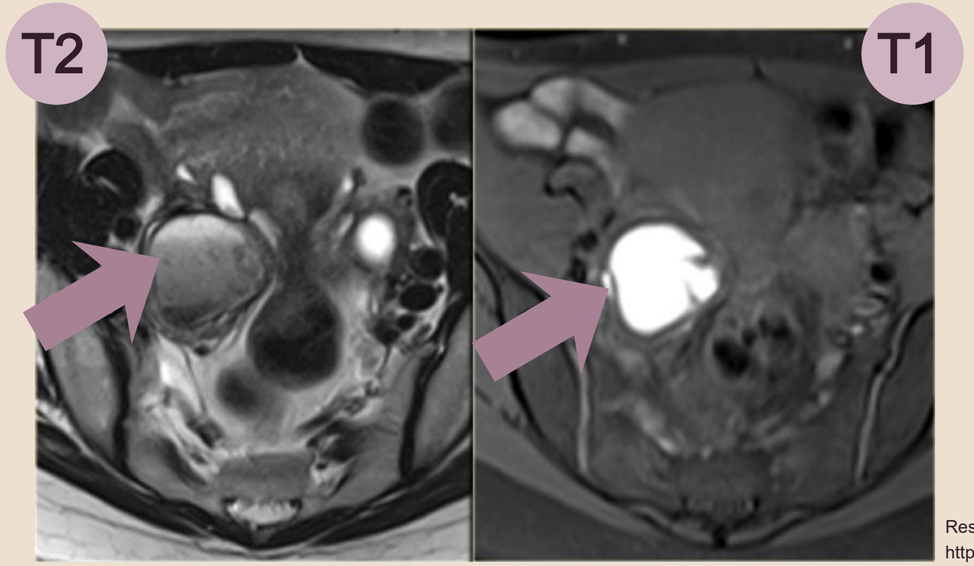
Clinically, vulvar endometriosis can be deceptive.

Most patients present with a painful vulvar mass that demonstrates cyclical changes- enlarging and becoming tender around menstruation. However, this cyclical nature may not always be initially recognized, especially in patients with **irregular menses or overlapping gynecologic symptoms such as dysmenorrhea or dyspareunia.**

Misdiagnosis is common, as in this case.

DISCUSSION

- A **pelvic MRI** , can support the diagnosis.
- On MRI, endometriotic lesions often appear as **hyper -intense or complex cystic structures on T1 -weighted** images with **variable enhancement on T2 -weighted** imaging.
- Findings may be non-specific.

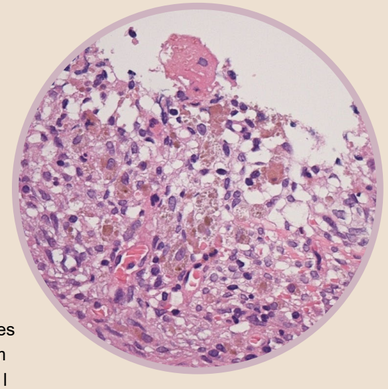


Resource: Radiology Assistant
https://radiologyassistant.nl/abdomen/unsorted/endometriosis-mri-detection

DISCUSSION

Histopathology remains the gold standard for diagnosis

- The presence of endometrial glands, stroma, and hemosiderin-laden macrophages confirms the diagnosis.
- In this patient, excision yielded tissue with all three classic histologic components.
- No capsule was noted - vulvar endometriotic lesions are often **infiltrative** or **poorly circumscribed** , contributing to incomplete resection and recurrence.



Resource: Pathology Core Pictures
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DISCUSSION

Management of vulvar endometriosis depends on symptom severity and patient preference.

- combined oral contraceptives
- progestins
- GnRH analogues

Reduce estrogen stimulation ⟶ shrunken lesions

Complete excision, including surrounding fibrotic tissue, is essential to minimise recurrence.

DISCUSSION

- **Recurrence** , though uncommon with complete excision, remains a risk
- **Long -term follow -up** : for lesions in anatomically complex or hormonally responsive locations
- Role of **hormonal suppression** post-operatively
- Although pelvic endometriosis was not identified on imaging in this case, it is prudent to monitor patients with extrapelvic manifestations, as concurrent or future pelvic disease may still emerge

CONCLUSIONS

CONCLUSIONS

1. This case highlights a rare but important differential diagnosis for**persistent or cyclical vulvar masses** , particularly in women with a history of episiotomy.

2. It underscores the importance of clinical vigilance, thorough history -taking, and consideration of surgical scar endometriosis in women with **menstrual -associated perineal symptoms** .

3. Early recognition and definitive excision can significantly improve quality of life and avoid unnecessary treatments or delays in care.

THANK YOU

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