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CAESAREAN SCAR ENDOMETRIOSIS PRESENTING WITH CYCLICAL BLEEDING FROM THE SCAR: A RARE MANIFESTATION MANAGED MEDICALLY

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ABSTRACT

Background: Scar endometriosis is a rare form of extrapelvic endometriosis characterized by implantation of endometrial tissue at the site of previous surgical scars, most commonly following cesarean sections. **Case Presentation:** We report the case of a 37-year-old woman (G2P2L2) who presented with a 4-month history of localized pain, swelling, and cyclical bleeding from the lower abdominal cesarean scar. The symptoms were temporally related to her menstrual cycle. Physical examination revealed a firm, tender, subcutaneous nodule measuring approximately 1.2 × 1 cm under the healed Pfannenstiel incision. Pelvic ultrasound demonstrated an ill-defined hypoechoic lesion with mild vascularity in the rectus sheath. Fine needle aspiration cytology confirmed the presence of endometrial glands and hemosiderin-laden macrophages. Based on clinical, radiologic, and cytological findings, a diagnosis of cesarean scar endometriosis was made. The patient opted for medical management and was started on oral dienogest 2 mg daily. At one-month follow-up, she reported significant symptom relief with reduction in pain and cessation of bleeding. **Conclusion:** Scar endometriosis should be considered in women with a history of cesarean section presenting with cyclical pain or bleeding at the scar site. Medical management with progestins like dienogest may offer effective symptom relief in selected cases with small lesions and patient preference for conservative therapy.

BACKGROUND

Caesarean section scar endometriosis (CSSE) is a rare form of extra-pelvic endometriosis wherein endometrial tissue implants along the tract of a previous cesarean section. These ectopic implants can occur at various levels, including the skin, subcutaneous tissue, abdominal wall musculature, intraperitoneal cavity, or even within the uterine scar itself. Surgical scar endometriosis is an uncommon complication of cesarean sections, accounting for approximately 0.03–0.4% of all endometriosis cases. It is estimated that 1.08–2% of women who have undergone hysterectomy and 0.06–0.7% of those with prior episiotomy may develop scar endometriosis.[1-3] Due to its rarity, scar endometriosis is frequently misdiagnosed as other postoperative complications such as hematomas, hernias, granulomas, abscesses, neuromas, or even neoplastic lesions.[4,5] In women presenting with abdominal pain and a history of prior abdominal or pelvic surgeries, a high index of clinical suspicion is essential for timely diagnosis of iatrogenic scar endometriosis.

Case Presentation

A 37-year-old woman, gravida 2 para 2 living 2 (G2P2L2), presented to the Gynecology Outpatient Department with complaints of pain, swelling over her lower abdominal surgical scar, and cyclical bleeding from the scar site for the past four months. The pain was described as dull aching in nature, localized to the area of the previous cesarean scar, and had progressively worsened with time. The swelling was initially small and had gradually increased in size. The patient also reported spotting of blood from the scar site synchronizing with her menstrual cycles. The symptoms were distressing, impacting her quality of life, although she had no associated fever, weight loss, or discharge apart from the cyclical bleeding. Her menstrual cycles were regular, occurring every 28–30 days, with a normal flow lasting 4–5 days. She had undergone her second lower segment cesarean section (LSCS) three years ago at a private hospital due to non-progress of labor. The postoperative period had been uneventful. She had no history of endometriosis, infertility, or hormonal therapy in the past. There was no prior history of abnormal uterine bleeding or dysmenorrhea before the cesarean delivery. Her first delivery had also been by LSCS six years earlier. On general physical examination, she was afebrile with stable vital signs (pulse 76/min, BP 118/76 mmHg, respiratory rate 16/min). Abdominal examination revealed a firm, non-mobile, tender subcutaneous mass of approximately 1 × 1.2 cm located beneath the healed Pfannenstiel scar. There was slight discoloration of the overlying skin, with no active discharge at the time of examination. The rest of the abdominal and pelvic examination findings were unremarkable. Speculum and bimanual examinations were normal with no adnexal tenderness or masses. A pelvic ultrasound was performed which revealed an ill-defined, hypoechoic lesion measuring approximately 1.6 × 1.4 cm with irregular margins located within the rectus sheath, underlying the internal oblique muscle. The lesion demonstrated mild vascularity on Doppler interrogation and was separate from the uterus and adnexa. These sonographic features were suggestive of scar endometriosis. Fine needle aspiration cytology (FNAC) from the lesion was performed under aseptic conditions. The smears showed fibrocollagenous tissue fragments with scattered endometrial glands and hemosiderin-laden macrophages, which were consistent with scar endometriosis. No atypia or malignant cells were noted. Based on the clinical history, examination findings, radiological evidence, and cytological confirmation, a diagnosis of scar endometriosis was made. The patient was counseled regarding the diagnosis and management options. Considering the small size of the lesion and her reluctance for immediate surgery, she was started on medical management with oral dienogest 2 mg once daily. She tolerated the medication well, and at one-month follow-up, she reported significant symptomatic relief. The pain and cyclical bleeding had subsided, and the size of the mass had reduced slightly on palpation. A repeat ultrasound was planned after three months of therapy. She was advised regular follow-up and informed that surgical excision with wide margins remains the definitive treatment for scar endometriosis to prevent recurrence. However, as she was currently asymptomatic, continued medical management was considered reasonable with ongoing monitoring.

DISCUSSION

The triad of a history of cesarean delivery, a palpable mass at the scar site, and cyclical pain is highly suggestive of scar endometriosis, as observed in several published reports. In the case reported by Hoshan et al,[6] a 35-year-old woman presented with a triad similar to our patient, and diagnosis was confirmed using MRI before undergoing surgical excision. Likewise, Poudel et al[7] described a 43-year-old woman with pain and a lump at the cesarean scar eight years post-surgery, with imaging revealing a mass consistent with

scar endometriosis, eventually managed surgically. Patil et al[8] presented two cases—one with classic cyclical pain and another with non-cyclical pain—both ultimately diagnosed as scar endometriosis on histopathology. This reinforces the variability in symptom presentation and the need for histological confirmation when clinical findings are inconclusive. Our case, however, included a distinguishing feature—cyclical bleeding from the scar site—which is less commonly reported. This finding further supported the clinical suspicion and prompted a targeted diagnostic approach. The size of the lesion in our patient (1.6 × 1.4 cm) was relatively small compared to other reports, such as the cases by Purbadi et al[9] and Patil et al,[8] which documented larger lesions exceeding 3–4 cm. Despite the smaller size, our patient experienced significant symptoms, demonstrating that lesion size does not always correlate with symptom severity. Unlike most cases in the literature that opted for surgical excision, our patient was managed successfully with medical therapy using dienogest, a progestin that suppresses endometrial proliferation. At one-month follow-up, she reported significant symptom relief. While surgery remains the definitive treatment, medical management can be a viable option in select cases, especially when lesions are small and patients prefer non-invasive treatment.

REFERENCES

1. Kaplanoglu M, Kaplanoglu DK, Dincer Ata C, Buyukkurt S. Obstetric Scar Endometriosis: Retrospective Study on 19 Cases and Review of the Literature. Int Sch Res Notices 2014:417042.
2. Nepali R, Upadhyaya Kafle S, Pradhan T, Dhamala JN. Scar Endometriosis: A Rare Cause of Abdominal Pain. Dermatopathology (Basel) 2022;9:158-63.
3. Zhang P, Sun Y, Zhang C, et al. Cesarean scar endometriosis: presentation of 198 cases and literature review. BMC women's health 2019;19:1-6.
4. Patil NJ, Kumar V, Gupta A. Scar endometriosis-a sequel of caesarean section. J Clin Diagn Res 2014;8:FD09-FD10.
5. Tangri MK, Lele P, Bal H, Tewari R, Majhi D. Scar endometriosis: A series of 3 cases. Medical journal, Armed Forces India 2016;72:S185-S8.
6. Al Hoshan MS, Shaikh AA. A classical case of cesarean scar endometriosis in a 35-year-old woman presenting with cyclical abdominal pain: A case report. The American Journal of Case Reports 2023;24:e940200-1.
7. Poudel D, Acharya K, Dahal S, Adhikari A. A case of scar endometriosis in cesarean scar: A rare case report. International journal of surgery case reports 2023;102:107852.
8. Patil NJ, Kumar V, Gupta A. Scar endometriosis-a sequel of caesarean section. J Clin Diagn Res 2014;8:Fd09-10.
9. Purbadi S, Purwoto G, Winarto H, Nuryanto KH, Scovani L, Sotarduga GE. Case report: Caesarean scar endometriosis – A rare entity. International journal of surgery case reports 2021;85:106204.