

Post-Cesarean Surgical Scar Endometriosis: A Case Study and Clinical Insights from Somalia

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Background: Scar endometriosis is a rare manifestation of extrapelvic endometriosis, characterized by the presence of endometrial tissue within a cesarean section scar. It typically manifests as cyclical pain and swelling at the site of the surgical incision and is often subject to misdiagnosis.

Case Presentation: This report examines a case involving a 30-year-old Somali woman with a history of multiple childbirths, presenting with a painful nodule at the location of a previous lower segment cesarean section (LSCS) scar. Her symptoms were cyclical, worsening during menstruation. Ultrasonographic evaluation revealed an endometriotic lesion, and histological examination following surgical excision confirmed the diagnosis. The patient had an uneventful recovery post-surgery.

Conclusion: It is important for clinicians to contemplate scar endometriosis in women presenting with a painful mass near a surgical scar that fluctuates with the menstrual cycle. Early identification and comprehensive surgical removal are crucial for effective management.

Keywords: scar endometriosis, cesarean section, abdominal wall mass, somalia, case report

Introduction

Endometriosis is a condition characterized by the presence of functioning endometrial tissue outside the uterine cavity. While pelvic endometriosis is relatively common, its extrapelvic form, such as scar endometriosis, is both rare and frequently underdiagnosed. The incidence of cesarean scar endometriosis varies from 0.03% to 1.7% among women who have undergone a cesarean delivery.¹

Scar endometriosis is a condition that emerges due to the iatrogenic implantation of endometrial tissue into a surgical site during medical procedures such as cesarean sections, episiotomies, or laparotomies. Diagnosis is frequently delayed because of the low clinical suspicion among medical practitioners and the condition's resemblance to other possible complications that can occur at surgical sites, such as hernias or granulomas.² Typical symptoms of scar endometriosis consist of cyclical pain and swelling, especially at the surgical scar site, with intensity and discomfort typically worsening during menstrual cycles. Diagnostic methods involve imaging techniques like ultrasound or MRI to detect endometriotic lesions, combined with histopathological analysis after surgical excision to confirm the diagnosis.³

Management of this condition primarily involves the surgical removal of the affected tissue, ensuring that the excision margins are clear to effectively avert any potential recurrence. The prognosis for patients is generally positive following the surgical intervention, with most individuals achieving complete symptom resolution and not experiencing any subsequent recurrence.⁴ An early diagnosis is critical to the success of the treatment, as it allows for prompt intervention and helps to prevent potential complications that could occur if the condition remains untreated.

Case Presentation

A 30-year-old female patient from Somalia, with a medical history of five cesarean sections, presented to our gynecology clinic (Kaafi Hospital) with complaints of a one-year history of pain and swelling at the site of her cesarean section scar

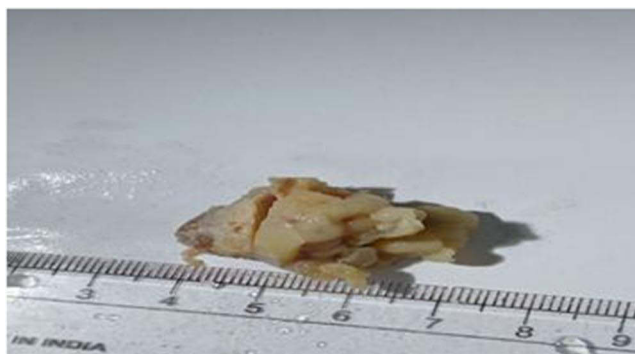


Figure 1 The image showing resected tissues.

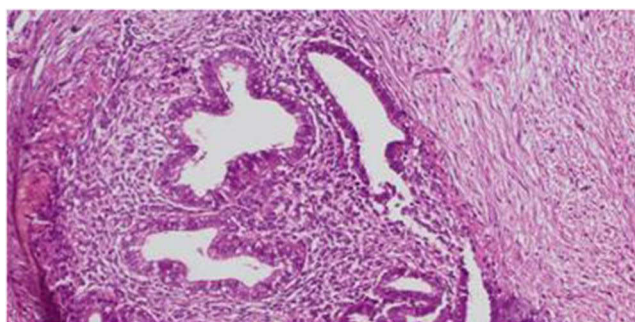


Figure 2 The image illustrates a histopathological slide of an excised specimen, revealing endometrial glands encircled by benign endometrial cells.

on the right lower abdominal wall. The pain exhibited a cyclical pattern, intensifying during her menstrual cycles. Her most recent cesarean section, conducted three years prior due to cephalopelvic disproportion, was followed by regular menstrual periods. The patient denied experiencing any systemic symptoms, such as fever, weight loss, or disturbances in gastrointestinal or urinary functions.

Physical examination revealed a firm and tender mass, measuring 4×3.5 cm, situated at the right lateral edge of the Pfannenstiel incision, without any changes to the skin or discharge. A pelvic examination showed no abnormalities. Ultrasound imaging identified a hypoechoic, solid lesion with limited vascularity within the subcutaneous layer, suggesting scar endometriosis. The patient underwent a wide local excision of the mass under spinal anesthesia; intraoperatively, the mass was well-circumscribed and adherent to the rectus sheath as depicted [Figure 1](#), and it was excised with clear margins. Histopathological analysis confirmed the presence of endometrial glands and stroma within fibrous tissue, consistent with endometriosis as mentioned [Figure 2](#).

The patient was discharged on the second postoperative day and reported no symptoms at the 3-month follow-up.

Discussion

Scar endometriosis is an uncommon but important consideration when evaluating masses at surgical incision sites. Its particular pathogenesis and associated risk factors demand careful diagnostic scrutiny. This condition arises from the inadvertent implantation of endometrial tissue during surgical procedures involving the uterus. This tissue later proliferates under hormonal influence.⁵

Several factors highlight the need for heightened clinical awareness. Key risk contributors include cesarean deliveries, early hysterotomies, and inadequate postoperative site cleaning. This underscores the importance of meticulous surgical techniques and preventative measures. Clinical manifestations such as a palpable mass near a surgical scar, cyclic pain that worsens during menstruation, and a history of uterine surgeries strongly suggest scar endometriosis. These signs should trigger suspicion among healthcare providers. Diagnostic imaging tools like ultrasound and MRI play an essential

role in preliminary evaluations. They offer visual evidence of endometriotic lesions, though they do not provide a definitive diagnosis.⁶

Histopathological examination remains crucial for definitive confirmation of scar endometriosis. While fine-needle aspiration cytology (FNAC) can offer preliminary insights, it is less conclusive than histopathological analysis. Histopathology accurately identifies endometrial tissue presence in fibrous or scarred tissue, thereby verifying the condition.

Surgical excision is the cornerstone approach for treatment. Thorough removal of the affected tissue with clear margins is recommended to minimize recurrence. This method is generally supported by positive outcomes, with patients achieving complete symptom resolution post-surgery.

Some clinicians may propose medical therapies, such as GnRH agonists and oral contraceptives, especially for patients unsuitable for surgery. These treatments can offer temporary symptom relief by modulating hormonal influences on endometrial tissue. However, recurrence rates can be high when relying solely on medication. This underscores the superiority of surgical intervention for long-term effectiveness.⁷

In summary, while alternative treatments exist, surgical excision remains the preferred and most effective strategy for managing scar endometriosis. The dual approach of accurate initial diagnosis through imaging and histopathological verification, followed by comprehensive surgical intervention, ensures both immediate and enduring patient relief. Nevertheless, ongoing discourse on medical therapies continues, especially for cases where surgery is not feasible. This highlights the need for tailored treatment plans based on individual patient circumstances.

Conclusion

This case highlights the crucial necessity for healthcare providers and clinicians to consider the potential presence of scar endometriosis in women who report cyclical pain specifically occurring at their cesarean incision sites. The elements of prompt and precise diagnosis, followed by timely surgical intervention, are vital for ensuring positive patient outcomes in such circumstances. It is particularly important for clinicians and healthcare professionals operating in resource-limited settings to maintain an elevated level of vigilance due to the possible limitations imposed on available diagnostic resources.

Patient Consent

Written informed consent was obtained from the patient for the publication of this case report and any accompanying images. According to the policies of the Kaafi Hospital Institutional Review Board, formal ethical approval was not required for single-patient case reports that do not include identifiable information. Therefore, institutional approval was not required for this publication.

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Disclosure

The authors declare no conflict of interest.

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