



## Rare case of scar endometriosis

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### Abstract

Endometriosis can sometimes occur in a previous surgical scar. The symptoms are nonspecific, typically involving abdominal wall pain at the incision site at the time of menstruation. A 31-year old woman with previous two caesarean section presents with cyclical abdominal pain and bleeding from the healed incision site. Examination revealed a well-healed caesarean scar, no mobile, firm, nodular, contender subcutaneous mass. Ultrasonography revealed a heterogeneous hypoechoic area with minimal internal vascularity. She was planned for scar excision after failed medical management. Intraoperatively, dense scar adhesions noted hence proceeded with total hysterectomy. Histopathological examination report confirmed the diagnosis of scar endometriosis. In conclusion, endometriosis is rare and difficult to diagnose. It should be suspected in woman of childbearing age with cyclic, painful nodule in a scar from a previous obstetric or gynecologic procedure, after excluding other differential diagnoses. Diagnosis is by imaging modalities and treatment of choice is usually surgical resection.

**Keywords:** Endometriosis, incisional endometriosis, painful scar, ultrasonography, scar excision

### Introduction

Endometriosis is a common gynaecological condition where the endometrial glands and stromal structures are found outside the uterus. Recently, the occurrence of scar endometriosis has been increasing together with the increase of CS incidence. The incidence of endometriosis in women of reproductive age is reported to be around 5–15% [1]. AWE (Abdominal wall endometriosis) that develops at the site of the surgical incision after obstetric or gynaecological surgeries, including CS (Caesarean section), is called scar or incisional endometriosis. The incidence of AWE after CS is 0.03–1% of women that underwent obstetric or gynaecological surgeries [2]. Usually there is delay in diagnosing AWE, the most common clinical symptoms and signs are swelling, tenderness on local site, and cyclic pain. The most accepted cause is mechanical iatrogenic implantation. Endometrial cells are inoculated directly into the surgical area and can progress to endometriosis in optimal conditions [3]. The most common treatment options for scar endometriosis include medical therapy and surgery [4]. We present a case of incisional scar endometriosis and followed by management and discussion regarding this rare case.

### Case Report

A 31-year old woman presented to our OPD in November 2018 with the complaint of pain in the lower abdomen – on the caesarean scar since one year. She also gives history of cyclic bleeding from the same scar. She is a known case of type 2 diabetes mellitus on irregular medication. Her obstetric history – P2L2 with two LSCS, 13 and 8 years back, in view of fetal distress and previous LSCS, respectively. Post-operative period of the first LSCS, she gives history of caesarean wound infection and hence was discharged on POD-15.

General examination was within normal limits. Local examination revealed a well-healed lower abdomen caesarean scar, non-mobile, firm, nodular, non-tender subcutaneous mass of size 3x2 cm in the midline.

Ultrasonography revealed a heterogeneous hypoechoic area with few cystic changes measuring 3.8x2cm in the lower abdominal wall in midline with minimal internal vascularity with fixation to anterior wall of uterus. A diagnosis of scar endometriosis was made and was started on Injection DEPO-PROVERA (Medroxyprogesterone acetate) 150mg monthly for 3 months. She was asked to review after 3 months for follow-up. Three months following her treatment, she presented in January 2019 with similar complaints of bleeding from the scar. She was later planned for scan excision.

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All routine blood investigations were done and was found to have uncontrolled glucose values and was started on Injectable insulin for immediate control. After obtaining fitness for surgery, she was then taken up for the required surgery.

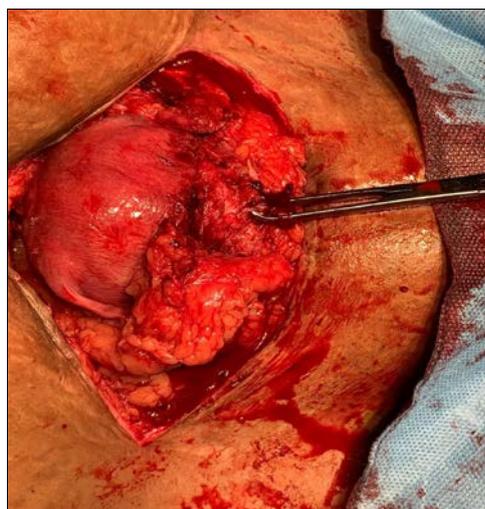
Intraoperatively, endometrioma noted over the rectus sheath and uterus was adhered to rectus sheath. A rent was noted in the anterior wall of uterus, communicating with anterior abdominal wall.

Dense scar adhesions were noted in the suprapubic area and between anterior part of uterus to the bladder. Dissection of the scar tissue was done from the above mentioned areas, adhesions separated. Intraoperatively, due to dense bladder adhesions, urologist was consulted and they advised total abdominal hysterectomy to avoid further resection of bladder and reducing the bladder volume. Total hysterectomy and vault closure done by routine steps and abdomen closed in layers. The specimens were sent for histopathological examination and the report confirmed the diagnosis of scar endometriosis along with proliferative endometrium, normal histological myometrium.

Postoperatively, no complications noted pertaining to surgery and has no signs of recurrence till date.



**Fig 1:** Well-healed lower abdomen caesarean scar with mass of size 3x2 cm in the midline



**Fig 2:** A rent noted in the anterior wall of uterus

## Discussion

The incidence of scar endometriosis has been reported to be between 0.03% and 1.7%.<sup>[5]</sup> Abdominal wall endometrioma presents as a painful swelling resembling surgical lesions such as hernias, hematomas, granulomas, abscess and tumors. Therefore, that is why these cases generally first report to general surgeons.

The pathogenesis of abdominal wall endometriosis is best explained by a combination of theories. One mechanism consists of the direct implantation of endometrial tissue during a surgical procedure on the endometrium<sup>[6]</sup>. The clinical diagnosis is based on the patient's medical history and physical examination. Among the methods that may be useful in diagnosing scar endometriosis are USG, CT, MRI as well as US-guided fine-needle aspiration biopsy<sup>[7]</sup>. On the other hand, because incisional biopsy will cause endometriosis to spread even further, some studies have advised against performing this procedure<sup>[5]</sup>.

Management of scar endometriosis includes hormonal treatment and surgical resection. Surgery remains the mainstay of treatment, including disease recurrence. Yela *et al.* stated that ultimate treatment is achieved through a total surgical removal of the mass together with at least 1 cm of surrounding healthy tissue, without impairing the integrity of the mass<sup>[8]</sup>. Other therapeutic options include pharmacologic therapy with hormonal suppression agents, such as progestogens or gonadotropin-releasing hormone (GnRH) analogs to down-regulate the hypothalamus-pituitary-ovarian pathway. However, the success rate with medical therapy is low, offering only temporary relief of symptoms and is often followed by recurrence after the cessation of drug therapy<sup>[5]</sup>.

## Conclusion

Scar endometriosis is a rare and maybe difficult to diagnose hence one should have a high index of suspicion when women present with these vague symptoms of cyclical pain in the incisional site of previous surgery. This condition can be confused with other surgical conditions like hematoma, neuroma, granuloma or even hernia. The entire tumor with the healthy tissue must be removed during the surgery. The patients must be definitively followed up postoperatively for recurrence.

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