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**Case Report** 

# Scar endometriosis: a rare entity

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### **ABSTRACT**

Endometriosis is described as the presence of functioning endometrial tissue outside the uterine cavity. Scar endometriosis is a rare disease with an incidence of 0.8% and is difficult to diagnose. It can occur after any surgery which involves endometrial manipulation but caesarean section greatly increases the risk of developing abdominal wall endometriosis. Ultrasound is the most accessible imaging modality along with history and physical examination for establishing a preoperative diagnosis. Clinicians should be aware and highly suspicious of endometriosis in women presenting with pain in the abdomen and/or abdominal mass near the scar following both obstetric or gynecologic surgery. Early diagnosis and treatment can prevent emotional as well as physical distress to the patient. Surgical excision is the best for diagnosis as well as treatment.

Keywords: Caesarean section, Scar endometriosis, Surgical excision

# INTRODUCTION

Endometriosis is described as the presence of functioning endometrial tissue outside the uterine cavity. Scar endometriosis is a rare disease and is difficult to diagnose. Extra pelvic endometriosis can be found in unusual places like in the nervous system, thorax, urinary tract, gastrointestinal tract and in cutaneous tissues unless its most frequent location is the abdominal wall. The main cause of extra pelvic implants is obstetric and gynecological procedures performed during gestation. Nominato et al said that cesarean section greatly increased the risk of developing abdominal wall endometriosis due to its pathophysiology where endometrial tissue from cesarean incision is directly implanted to the scar. <sup>2</sup>

Here, we presented the case of a 27-year-old parous woman who was diagnosed with scar endometriosis.

## **CASE REPORT**

A 27 years old female presented to the gynecology OPD with chief complaints of intermittent burning type of pain

in the lower abdomen for the past 6 months, amenorrhea for 3 months and pain during micturition for the past 1 month. She had undergone a lower segment cesarean section two and a half years ago due to failed induction. There was no other relevant history.

On abdominal examination there was presence of a well healed transverse scar 2 cm above the pubic symphysis with a length of 12-14 cm. There was no other finding.

On bimanual examination there was a palpable mass/cystic structure of around 8×8 cm felt anterior to the uterus which was tender.

On investigating the patient her routine blood and urine tests were found to be normal. Urine pregnancy test was negative. CA125 was on the higher side with a value of 41 units/ml. Sonography revealed a 10×5×7 cm thin walled heterogeneous hypoechoic mass with echogenic spots anterior to uterus and posterior to bladder communicating with the endometrial cavity with thinning of adjoining uterine wall. MRI confirmed the finding showing well defined thin walled exophytic hemorrhagic cyst measuring

8×6×7cm arising from the anterior wall of the lower uterine segment communicating with the endometrial cavity and abutting the posterior wall of the urinary bladder. However, no evidence of fistulous tract was noted.



Figure 1: Scar endometriosis.



Figure 2: Scar endometriosis as seen from below.

The patient underwent surgical excision of the suspected caesarean scar endometrioma. Intraoperatively there was evidence of approximately 10×8 cm cyst lying anterior to uterus and posterior to the bladder in the lower segment reaching up to cervix (Figure 1 and 2). The cyst drained about 150 cc chocolate coloured fluid. After excision of the cyst, thinned anterior uterine wall was repaired in layers using vicryl suture. Patient stood the procedure well. There were no postoperative complications and the patient

was discharged on third postoperative day. Patient experienced complete resolution of symptoms. No additional treatment in the form of medical/hormonal treatment was prescribed to the patient after surgery.

#### DISCUSSION

Scar endometriosis is a rare entity with an incidence of 0.8%.

The most common symptoms included cyclical/non-cyclical pain in the abdomen, dysmenorrhea, palpable mass in abdomen/adjacent to the caesarean scar or no symptoms at all.

Studies had reported scar endometriosis involved operations in which the uterus was opened.<sup>6</sup> During the surgery, endometrial tissue can get accidentally implanted into ectopic sites and grew to form a mass which increased in size during menses and was responsible for the abovementioned symptoms.

In our case the main symptom was burning type of intermittent pain in the lower abdomen which was non-cyclical. This was followed by amenorrhea and then painful micturition which can be attributed to the pressure of the endometriotic mass.

The mean period to develop the disease was approximately 12 months, but some cases may take as long as 21 years.<sup>7</sup>

In a study conducted by Francica et al the common sonographic features included: a hypoechoic inhomogeneous echo texture with internal scattered hyperechoic echoes; irregular margins, often spiculated, infiltrating the adjacent tissues; and a hyperechoic ring of variable width and continuity.<sup>4</sup> In our patient, there were findings of a cystic mass with hemorrhagic collections in it. Thus, preoperative diagnosis can easily be made with the help of history as well as ultrasound findings.

Various other differential diagnoses that were to be considered while making the diagnosis in a case like ours included hematoma, foreign body granuloma or an incisional hernia.<sup>5</sup> According to Hensen et al ultrasound was the most accessible imaging modality, which allowed along with physical examination a differential diagnosis of incisional hernia, hematoma, abscess or sebaceous cyst in most cases.<sup>3</sup> However a hematoma will present shortly following a caesarean section as an acute or subacute complication presenting as pain in incision and was expected to resolve over time. Imaging modality helped in the diagnosis. A foreign body granuloma appears as welldefined hyperechoic mass with either single or double hyperechoic lines within. It had variable appearance on MRI with areas of heterogeneous T1/T2 signal. In incisional hernia, the patient presented with a palpable swelling and/or cough impulse. Ultrasound was a useful tool for diagnosis as it allowed observation of the mass during rest and the valsalva maneuver. A fascial defect might also be detected in the anterior abdominal wall during imaging.

In the end, a high probability of caesarean scar endometrioma should be considered in any case presenting with symptoms like pain in the scar during menses and any mass appearing in the region of caesarean scar.

#### **CONCLUSION**

Although scar endometrioma is a rare disease, it should be highly suspected in women with pain in the abdomen and/or abdominal mass near the scar following both obstetric or gynecologic surgery. Early diagnosis should be made with the help of careful history taking, physical examination and imaging modality. Surgical excision is the recommended treatment for complete resolution with high success and less recurrence.

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