

Case Report

A case series on management of scar endometriosis following C-sections

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ABSTRACT

Endometriosis is presence of functioning endometrial tissue outside the uterine cavity. Endometriosis can sometimes occur in a previous surgical scar. Scar endometriosis is rare and difficult to diagnose. It mostly follows obstetrical and gynecological surgeries. This condition is often confused with other surgical conditions. We are reporting 5 cases of scar endometriosis following cesarean section, some of which were misdiagnosed as stitch granuloma initially. Medical treatment was not helpful. All 5 patients required wide surgical excision of the lesion. The pathogenesis, diagnosis and treatment of this condition are being discussed.

Keywords: Cesarean section, Hormonal therapy, Scar endometriosis, Wide local excision

INTRODUCTION

Endometriosis is the presence and growth of the glands and stroma of the lining of the uterus in an aberrant or heterotopic location. It is generally a benign condition but, in many women, a progressive and aggressive disease. The wide spectrum of clinical problems that occur with endometriosis has frustrated surgeons, fascinated pathologists, and burdened patients for years.¹ It is seen in 6-10% of the women in reproductive age group and about 50% of the women will have pelvic pain, abnormal menstruation and infertility associated with it.² The most common sites where endometriosis occurs are the ovaries (60-75%), uterosacral ligaments (30-65%), cul-de-sac (20-30%), gastrointestinal tract (3-37%), ureters (1-2%), bladder (<1%) and scar tissue (<1%). Scar endometriosis is a rare entity but is becoming more frequent after cesarean section (Pfannenstiel syndrome) as demonstrated in a systematic review by Horton et al.³ Majority of the cases have been noted in and around the cesarean section (57%) or hysterectomy scars (11%).

CASE REPORT

Clinical presentation and management

Here we discuss 5 such cases of unusual presentation of endometriosis in the previous lower segment cesarean scars. The mean age distribution in our 5 cases was 29 of which 3 patients were primi C-sections and 2 were previous 1 C-section with no comorbidities. All our patients in the study series presented with a firm non-reducible mass over the previous Pfannenstiel scar with cyclical tenderness over it. Other symptoms include progressive enlargement of the mass, discharge of brown fluid etc., as elaborated in Table 1.

A radiological confirmation of the diagnosis was done. 3/5 cases showed rectus sheath involvement on imaging. Intra operatively, involved rectus sheath was excised with the endometrial mass and rectus defect closed with PDS as in Figure 1.

Table 1: Clinical presentation of the study series.

	Firm, non-reducible mass	Progressive enlargement	Cyclical tenderness	Discharge of brown fluid	Rectus involvement	Duration post LSCS
Case 1	+	+	+	+	+	4 years
Case 2	+	-	+	+	+	3.5 years
Case 3	+	+	+	-	+	2.5 years
Case 4	+	+	-	-	-	2 years
Case 5	+	-	+	-	-	2 years

**Figure 1: Preoperative lesion and post excision defect in rectus sheath.**

Full thickness wide local excision was done for all cases and sent for histopathological examination as shown in Figure 2.

**Figure 2: Excised specimen in toto.**

HPE of the excised specimen showed keratinized stratified squamous epithelium with follicular plugging of fibro-collagenous stroma. The stroma contained numerous endometrial glands with areas of hemorrhage, congested blood vessels, myxoid degeneration and occasional multinucleated giant cells- all suggestive of scar endometriosis. All patients were treated post operatively with hormonal therapy- Inj. Lupurolide 3.75

mg once monthly for 3 months. All 5 patients were followed up for a period of 1 year and showed no symptoms/recurrence.

DISCUSSION

Several theories exist for the development of endometriosis: metaplasia, retrograde menstruation, venous and lymphatic metastatization, and mechanical transposition. The latter mechanism is thought to be responsible for scar endometriosis.⁴ Reaching a diagnosis of scar endometriosis is difficult because of the uncommon nature of the condition. A targeted history and a thorough examination have been shown to have high reliability for diagnosis. Women will classically describe the presence of a discrete, non-reducible mass within or adjacent to the scar, which is associate with cyclical tenderness, progressive enlargement and occasionally leakage of brown fluid. This is usually in the absence of dysmenorrhea. Transabdominal ultrasound is the radiological investigation of choice, although MRI may be required in more complex cases. Important features to be identified are the size of the lesion and whether it lies above or below the rectus sheath, which is pertinent if surgical excision is planned. If the diagnosis remains unclear fine needle aspiration can be considered although theoretically this may result in further deposits being introduced.⁵ Medical management usually has a low success rate and includes oral contraceptives, gonadotropin releasing hormone analogues, danazol and progesterone.⁶ The management of choice is surgical excision for proper histopathological diagnosis and for therapeutic purpose. The patient may benefit from further management with hormonal therapy and to prevent recurrence. Recurrence after excision is usually rare, as is malignant transformation, although it has been reported.⁷ Long term endometriosis, endometriosis diagnosed at an early age, endometriosis associated with infertility, presence of enlarging ovarian endometrioma or changing characteristics and mural nodule formation are risk situation for malignant transformation of endometriosis. Giving the increasing number of caesareans in the world it is likely that abdominal wall endometriosis also increases.⁸ From January 1951 to August 2006, 29 articles describing 445 patients diagnosed with endometriosis majority of cases were associated with a caesarean scar or a gynecological surgeries, and 20% of patients had abdominal wall endometriosis not associated

with scars.⁹ Among gynecological procedures caesarean section greatly increases the risk of developing scar endometriosis when compared to other gynecological procedures.¹⁰

CONCLUSION

Scar endometriosis is a rare but unique form of endometriosis. Careful history and physical examination is the key to provide accurate diagnosis and provide unnecessary delay before surgical intervention. Localized cyclical abdominal pain with the absence of dysmenorrhea and a history of prior caesarean section are independent risk factors with very high accuracy for the diagnosis. Wide local excision is the accepted treatment with adjuvant hormonal therapy.

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