

Scar endometriosis: A rare case report

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ABSTRACT

Endometriosis is condition in which presence of functioning endometrial tissue outside the uterine cavity. It is of two types, pelvic and extrapelvic types. Scar endometriosis is a rare entity and extrapelvic type and very difficult to diagnose. The incidence of scar endometriosis is 0.03% to 0.15%. It is commonly occur after obstetrical and gynecological surgeries. We report a rare case of scar endometriosis in 28 years Indian female who presented with anterior abdominal wall swelling and pain in the mass during menstrual cycle since 1 year at lower abdominal cesarean section site after 2 years of surgery. The purpose of presenting this case is to discuss clinical features, incidence, pathogenesis, and histopathological findings. Histopathology plays a key role in the diagnosis of scar endometriosis.

KEY WORDS: Endometriosis; Anterior Abdominal Wall Swelling; Pain in Scar; Lower Abdominal Cesarean Section

INTRODUCTION

Endometriosis is defined as the presence of endometrial glands and stroma outside the uterine cavity.^[1] It generally occurs in woman of reproductive age group.^[2] It is of two types, pelvic and extrapelvic. Pelvic sites are ovaries, posterior cul-de-sac, uterine ligaments, pelvic peritoneum, bowel, and rectovaginal septum, whereas extrapelvic endometriosis sites are nervous system, thorax, urinary tract, gastrointestinal tract, and cesarean scar site.^[3] Scar endometriosis is an unusual entity with much rarer incidence (<1%).^[4,5] Most of the time patient with abdominal wall tumor visit to general surgeon rather visiting gynecologist.^[2,6] It is mainly diagnosed by after surgical excision with the help of histopathology. Many theories are there to describe pathogenesis of scar endometriosis.

CASE REPORT


A 28-year-old Indian woman presented with the complaint of pain and swelling on the cesarean scar site for 1 year. She complaint pain in the scar during menstrual cycle. She underwent cesarean section 2 years ago. She started developing swelling and pain after 1 year of surgery since then size of swelling was increasing gradually. Ultrasonography showed heterogeneous mass with cystic changes, uterus, and cervix was normal.

We received a specimen of scar mass measure 5.5 cm × 4.5 cm × 3 cm in size, grayish white in color with surrounded by fat and upper, lower, and peripheral margins. Cut section showed small cyst like structure which were white in color (Figure 1).

Histopathological finding of scar mass showed fibrocollagenous tissue as well as fibroadipose tissue with normal endometrial glands and stroma. Occasional giant cell was also seen Figures 2 and 3.

DISCUSSION

Scar endometriosis is very rare entity. The disease affect 10-15% of fertile female, most common age group is

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Figure 1: Gross specimen: Anterior abdominal wall mass with adipose tissue, cut section shows cyst like spaces grayish white in color

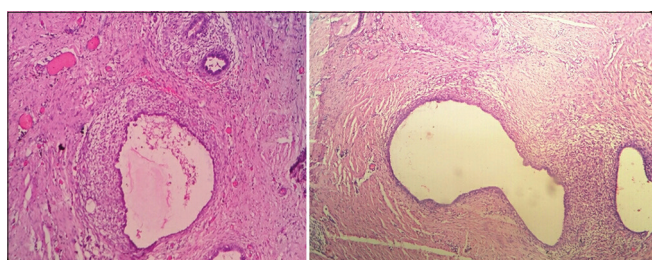


Figure 2: Endometrial glands and stroma in a fibrous background are the hallmarks of endometriosis ($\times 40$)

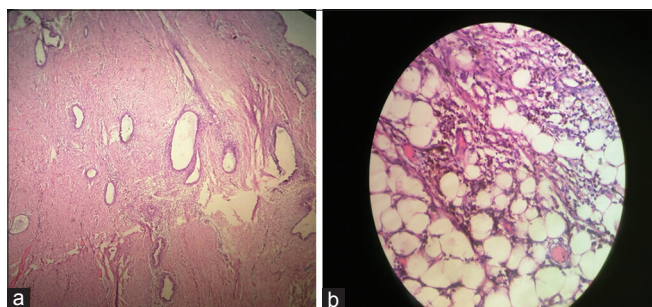


Figure 3: (a) Plenty of endometrial gland and stroma ($\times 10$), (b) hemosiderin laden of macrophages ($\times 10$)

25-35 years.^[2] According to the literature, incidence of scar endometriosis after cesarean sections ranges from 0.03% to 0.45% and it is about 1% for midtrimester abortion.^[4,5] Cesarean section delivery is very common cause. It may rarely be seen after appendectomy, episiotomy, laparoscopic procedures, amniocentesis, and inguinal herniorrhaphy.^[6] One case report shows that it can occur after laparoscopic gastric bypass^[2] and cholecystectomy.^[6] Frequency of scar endometriosis is increasing, due to increase in frequency of cesarean section and laparoscopy in present era.

Clinical diagnosis of scar endometriosis can be made by careful history and physical examination. Colicky type of pain on surgical site is the most common symptom

(76.5%). Palpable mass was found in 41.2%.^[4,7,8] The nature of pain and swelling, which worsen during menstruation, is pathognomonic.^[4,7] However, in the largest reported series to^[9] date, only 20% of the patients exhibited these symptoms.

According to many studies time interval between surgery and presentation varied between 3 months and 10 years,^[10] Biswas et al. reported fluctuation of swelling size after each menstruation cycle and present after 5 years of lower segment cesarean section (LSCS).^[11] Celik et al. a case was reported with a 2 years' time interval.^[12] We reported fluctuation in size of swelling with menstruation cycle but female presented after 1 year of LSCS.

There are many theories to explain about scar endometriosis such as direct implantation, cellular transplantation, and coelomic metaplasia theory.^[7,13] However, the most common theory is the direct mechanical implantation of endometrial tissue on the scar site.^[7,13] Endometrial tissue directly implanted into the cesarean section site which proliferates under the influence of estrogen hormone.^[7] The strongest risk factor for development of scar endometriosis is early hysterectomy like for hysterectomies for abortion.^[14] Under proper hormonal stimulus, these cells may proliferate (cellular transport theory) or the neighborhood tissue may undergo metaplasia, which leads to scar endometriosis (coelomic metaplasia theory). By lymphatic or vascular pathways, the endometrial tissue may reach the surgical scar and then generate to scar endometriosis.

Differential diagnosis of scar endometriosis are hematoma, neuroma, hernia, granuloma, abscess, scar tissue neoplastic tissue, and metaplastic carcinoma.^[6]

There are various methods for diagnosis of scar endometriosis such as ultrasonography, computed tomography, and magnetic resonance imaging.^[15,16] Role of Doppler sonography and fine needle aspiration cytology is unclear in the diagnosis of scar endometriosis.^[17] Histopathological examination is gold standard for diagnosis of scar endometriosis. Scar endometriosis is diagnosed by presence of endometrial glands, stroma, and hemosiderin pigment.^[18] In our case, we saw classical history given by the patient and presence of endometrial glands and stroma during histopathological examination.

Local wide excision is the treatment choice of scar endometriosis.^[19] Medical therapy of scar endometriosis is available, but recurrence on cessation of therapy is always expected.^[20]

The incidence of concomitant pelvic endometriosis with scar endometriosis has been reported to be from 14.3% to 26%.^[21,22] Ideally, all patients should be examined for concomitant pelvic endometriosis.

CONCLUSION

Scar endometriosis is a rare entity. Histopathological examination is the gold standard for diagnosis of scar endometriosis. General surgeon and gynecologist should keep scar endometriosis as one of the differential diagnoses when a woman present with painful swelling in the abdominal scar specially with history of previous LSCS. Since, scar endometriosis is a rare and often elusive diagnosis that can lead to both patient and physician frustration. Through physical and clinical examination is very important.

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