Abdominal Incisional Endometriosis Following Cesarean Section: Report of 2 Cases

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Abstract

Endometriosis is described as the presence of functioning endometrial tissue (glands and stroma) outside the uterine cavity. The most common location is within the pelvis. However, extra pelvic endometriosis is a fairly uncommon disorder and difficult to diagnose. It can sometimes occur in a surgical scar. Scar endometriosis is a rare condition and difficult to diagnose. It mostly follows obstetrical and gynecological surgeries. It presents as a painful, slowly growing mass in or near a surgical scar. We report two cases of abdominal wall endometriosis following hysterotomy and cesarean section. Consequently the pathogenesis, diagnosis and treatment are discussed.

Keywords: Abdominal wall, Cesarean scar, Endometriosis

Introduction

Endometriosis is defined as the presence of uterine mucosa (glands and stroma) outside the uterus (1, 2). The most common location is within the pelvis and has been reported to occur in as many as 44% of women undergoing laparoscopy for nongynecological symptoms (3). However, extra pelvic endometriosis is a fairly uncommon disorder and difficult to diagnose.

Abdominal wall endimetriosis often develop in previous surgical scars but there is a case report of a spontaneous occurrence also (3). Endometrioma is a well circumscribed mass of endometriosis (1). Majority of the scar endometriosis have been reported after obstetrical or gynecological procedures such as cesa-

Azam Azargoon, Amir- Al- Momenin Hospital, Madar square, Semnan, Iran. P.O. Box: 35197-34731 Tel: 0098-2314460088 Fax: 0098-2314461580 E-mail: azarmona2003@yahoo.com In this paper we describe two cases of abdominal wall endimetriosis following hysterotomy and cesarean section.

Case 1

Abdominal examination revealed a 3×5 cm tender firm mass in midline at the site of incision. It appear-

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rean delivery, hysterotomy, hysterectomy, episiotomy and tuballigation, but few cases are reported to be following appendectomy, in the laparoscopic trocar tract and amniocentesis needle tract. Its clinical diagnosis in the abdominal wall has been confused with abscess, lipoma, hematoma, sebaceous cyst, suture granuloma, inguinal hernia, incisional hernia, desmoid tumor, sarcoma, lymphoma or primary and metastatic cancer (2, 3).

A 28 – year – old woman from Afghanistan referred to the infertility clinic with secondary infertility from 6 years ago. She was undergone hysterotomy in 27 week of gestation about 7 years ago due to severe vaginal bleeding. Her fetus died after birth due to prematurity.

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rigure1: Ultra sound image showing a round, hypoechoic extrafasial mass in the right side of abdominal wall in site of cesarian section.



Figure 2: Microscopic examination of the excised mass showed fibroconnective tissue infiltrated by proliferative type endometrial glands and stroma with hemorrhage.

ed in the subsequent year after hysterotomy and was associated with pain and swelling aggravating during menstruation. Ultrasonography revealed a round, hypoechoic, 29×49 mm mass in the right side of incision site in subcutaneous area (Figure 1). Abdominal computed tomography (CT) scan showed a hypoechoic mass in midline of anterior abdominal wall that suggested to be a desmoid tumor or an endometrioma.

Wide excision of the mass was done. A 10×6×4cm grayish colour mass was removed from the subcutaneous tissue, just above the fascia. Histopathology of the excised mass confirmed the diagnosis of scar endometriosis (Figure 2). One month later she had missed period and positive pregnancy test. The patient passed an uneventful prenatal period. Cesarean section was done due to previous hysterotomy. During cesarean section mild omental adhesion was seen on uterus and there was not any evidence of endometriosis in pelvic organs. A healthy baby with Apgar score 10 was delivered.

CASE 2

A 29 – year – old woman presented with a painful nodule at the right end of a Pfannensteil incision. She had two prior caesarean deliveries 6 and 9 years ago. Abdominal examination revealed a 2×1 cm firm brown – blue tender mass at right side of cesarean scar. The case was referred to general surgeon as stich granuloma, so she had not preoperative radiologic studies or ultrasound. The mass was excised under local anesthesia. The result of histopathology study was scar endometriosis (Figure 3).

Discussion

Abdominal wall endometriosis presents as a painful swelling resembling surgical lesions such as hernias, hematomas, granulomas, tumors and abscess (2, 3). This is why the patients commonly refer to general surgeons first. Both above two cases also were referred to general surgeons.

Surgical scar endometriosis is relatively uncommon and is usually associated with cesarean sections or hysterectomy. Its incidence after cesarean section is difficult to determine, but is estimated to be in a range from 0.03 % to 0.47% (1). Mid – trimester abortion via hysterotomy is associated with the highest occurrence rates (1.08–2%). The reason for higher incidence after hysterotomy has been given as the early decidua has more pleuropotential capabilities, and can result in cellular replication producing endo-

metriomas (2, 4). Although surgical scar endometriosis may occur in association with a variety of other incisions, it usually is attributed to gynecologic or obstetric procedures and develop from 3 months to 10 years in different series (3, 4). Cases reported in this article occurred 1 and 5.5 years after cesarean and hysterotomy.

The etiology of surgical scar endometriosis is straight forward and involves mechanical transplantation of endometrium or placental cells into the wound during a surgical procedure and subsequently stimulated by estrogen to produce endometriosis (2, 3, 5).

The simultaneous occurrence of pelvic endometriosis with scar endometriosis is infrequent (3). Associated pelvic endometriosis is reported to present in 24 % of patients in literature (2). Neither of our patients had symptoms of pelvic endometriosis.

The pain in endometriosis has been classically described as cyclical however, almost half of patients in Blanco's study presented with non cyclic pain, not related to the menstrual cycle (1). In present study the chief complaint of the first patient was infertility and a tender mass on abdominal wall at site of incision scar. The second patient had swelling and pain with a mass in site of cesarean scar. Various diagnostic methods have been described in the literature. The sonographic appearance of abdominal wall endometriosis can be cystic, polycystic, mixed or solid. Echo pattern may or may not correlate with the menstrual cycle and sonographic appearance is nonspecific (1, 3, 4).

In our first patient sonography showed: a 29×46 mm hypoechoic mass at right side of abdominal wall along the scar. It was suggested to be a lipoma, hernia or hematoma.

On CT slides, endometrioma usually appears as a circumscribed solid or mixed mass, enhanced by contrast and may show hemorrhages (1, 3). MRI can be more helpful when the lesion is small because of its high spatial resolution (1, 4).

Fine needle aspiration has been used to confirm the diagnosis of endometrioma before surgical excision. There is concern that this procedure has the potential to seed the needle tract with cells and cause recurrence, especially in patients with concomitant intrapelvic endometriosis, although this has been not reported (5). Concerning the role of needle aspiration cytology, it still remains controversial (6).

Treatment of choice is wide excision of the lesion even if this necessitates fasial excision and may sometimes require mesh placement (1,3,5,7).



Figure 3: Microscopic examination of the excised mass showed endometrial glands and stroma with hemorrhage and hemosiderine laden macrophages (high power).

Medical treatment with the use of progestins, oral contraceptive pills and danazol is not effective and gives only partial relief in symptoms (1, 4, 8).

These patients need to be followed up because of the chances of recurrence which require re-excision. In cases of continued recurrence possibility of malignnancy should need to be ruled out (3, 4).

Good surgical techniques and proper care during cesarean section may prevent scar endometriosis. It has been suggested that at the end of surgery (especially manipulations of uterus and tubes), the abdominal wound should be cleaned thoroughly and irrigated vigorously with high jet solution before closure (4). We should have high index of suspicion about scar endometriosis when a woman presents with a painful swelling or mass in the abdominal scar especially with a history of previous gynecological or obstetrical surgery. This condition can be confused with other surgical conditions. Efforts should be made to make a preoperative diagnosis with imaging techniques. Wide excision is the treatment of choice. Patient should be followed up for possible recurrence.

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