

A case of bifocal endometriosis involving a pfannenstiel incision

Przypadek dwuogniskowej endometriozy w bliznie po cięciu cesarskim

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Abstract

A 25-year-old woman was referred to our clinic for atypical cyclic pain and masses at both ends of a Pfannenstiel incision scar.

Ultrasound of the anterior abdominal wall showed two masses. Both masses were hypoechoic, heterogeneous lesions located at opposite ends of the scar. The lesions were surgically excised with. Microscopic examination revealed endometrial gland structures with endometrial stroma in fibroadipose tissue in sections of both specimens indicative of endometriosis. Incisional endometriosis (IE) is a form of extrapelvic endometriosis especially in scars of obstetric or gynecologic surgery. IE may be multifocal at surgical scars.

We report the a case of bifocal incisional endometriosis in Pfannesteil scar. Whole scar evaluation should be done for incisional endometriosis and surgical excision should be performed for treatment.

Key words: **endometriosis / scar / cesarean section /**

Streszczenie

25-letnia kobieta została przyjęta do naszej kliniki z powodu nietypowego, cyklicznego bólu i guzów po obu końcach blizny po cięciu cesarskim.

W badaniu USG przedniej ściany brzucha uwidoczono dwie hipoechogenne zmiany zlokalizowane na końcach blizny. Zmiany usunięto. Badanie mikroskopowe wykazało struktury gruczołów i podścieliska endometrium w tkance włóknisto-tłuszczowej wskazujące na endometriozę. Endometrioza w bliznie pooperacyjnej jest jedną z form pozamiedniczej endometriozy. Może występować wielogniskowo, zarówno po operacjach położniczych jak i ginekologicznych. W postępowaniu leczniczym należy przeprowadzić dokładną ocenę całej blizny oraz wykonać wycięcie blizny.

Słowa kluczowe: **endometrioza / blizna / cięcie cesarskie /**

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Introduction

Endometriosis is defined as the presence of functioning endometrial glands and stroma outside the uterine cavity. It generally develops within the pelvis, but extrapelvic endometriosis lesions can be found at other sites [1]. Incisional endometriosis (IE) is a form of extrapelvic endometriosis seen in scars from obstetric or gynecologic surgery [2] and can be multifocal, particularly at the end of a Pfannenstiel incision [3]. This report presents a case of bifocal IE at both ends of a Pfannenstiel incision.

Case Report

A 25-year-old woman (G2P2) was referred to our tertiary university hospital for atypical cyclic pain and masses at both ends of a Pfannenstiel incision scar. She had a history of mass and pain, especially during menstruation, at the right end of the scar for 18 months and at the left end for 3 months. She was a non-smoker, taking no current medications, who breast fed after her cesarean delivery two years earlier.

On physical examination, solid masses were palpated at both ends of the incision. Ultrasound of the anterior abdominal wall showed two masses: one measuring 30×26mm and the other measuring 17×12mm. Both masses were hypoechoic, heterogeneous lesions located at opposite ends of the scar. (Figure 1).

The lesions were excised with 1.0-cm surgical margins, including a minimal amount of anterior abdominal wall fascia. (Figure 2).

Microscopic examination revealed endometrial gland structures with endometrial stroma in fibroadipose tissue in sections of both specimens, indicative of endometriosis. (Figure 3).

The patient recovered uneventfully and did not report any postoperative symptoms 3 months after the surgery.

Discussion

Endometriosis affects an estimated 3~10% of women of reproductive age. The pelvis is the most common site of the disease, with common presenting symptoms including dysmenorrhea, dyspareunia, and infertility. Extrapelvic endometriosis may involve the peritoneum, urinary tract, intestines, colon, and thorax [3]. The abdominal wall is the most common site of extrapelvic endometriosis, where it usually develops in association with a surgical scar, and has an incidence of approximately 4% in pathologically proven endometriosis lesions [4].

Rarely, IE can be multifocal. Teng et al. reported that in 22 IE cases, only three had multiple endometriotic foci: one case had three foci and the other two cases had two foci each; they also found that endometriosis involving a Pfannenstiel incision was more common at the right end of the scar [3]. Spontaneous abdominal wall endometriosis with no previous scar has been reported [5].

However, abdominal wall endometriosis is generally associated with uterine surgery, such as Cesarean section (CS), myomectomy, hysterotomy, or metroplasty, and IE should be considered if a mass develops postoperatively. The estimated incidence of IE after CS is 0.3 to 1% [1].

A mass associated with cyclic pain is the classic presentation of IE, although cyclic pain is not a universal pattern of the pain. Only 57% of patients with IE have cyclic symptoms.

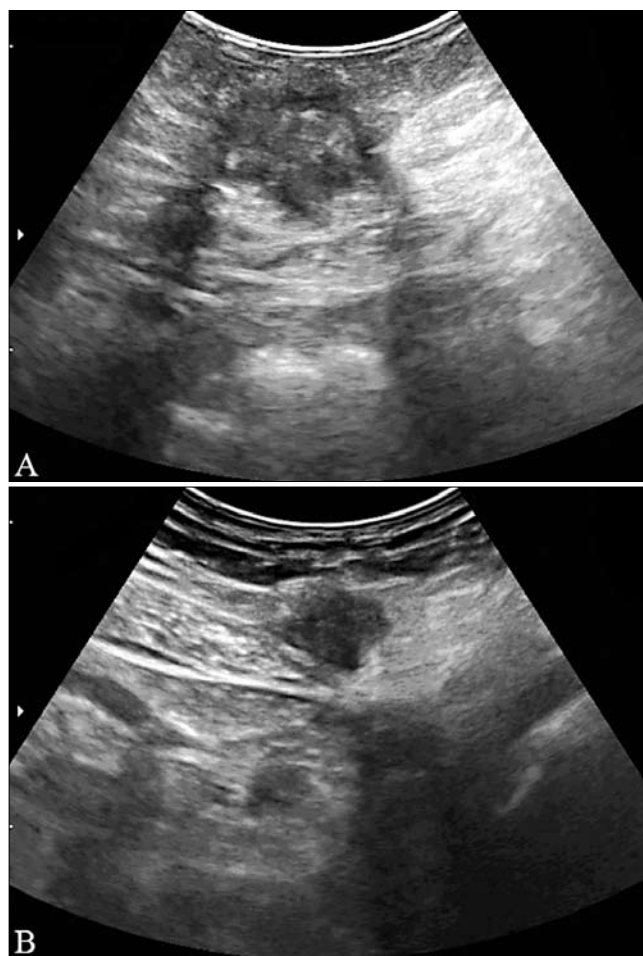


Figure 1. Ultrasound images of mass A and B.

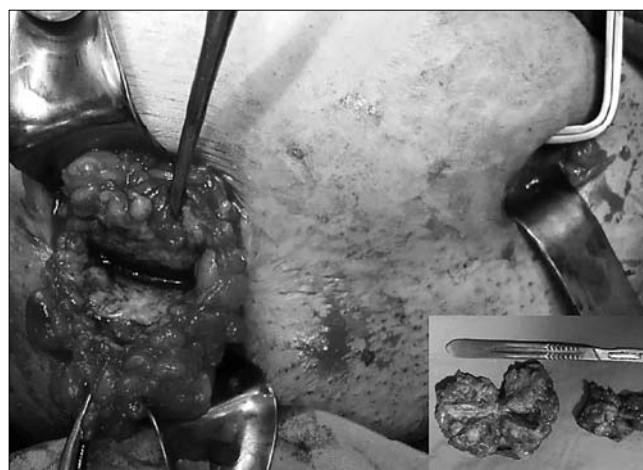


Figure 2. Surgical excision of the lesions and their gross appearances.

The presence of a mass (96%) and pain (87%) are the more common symptoms [6]. If cyclic pain is absent, the diagnosis of IE is generally difficult. The differential diagnosis includes hernia, hematoma, lymphadenopathy, lymphoma, lipoma, abscess, subcutaneous cyst, suture granuloma, neuroma, soft-tissue sarcoma, and metastatic cancer [3].

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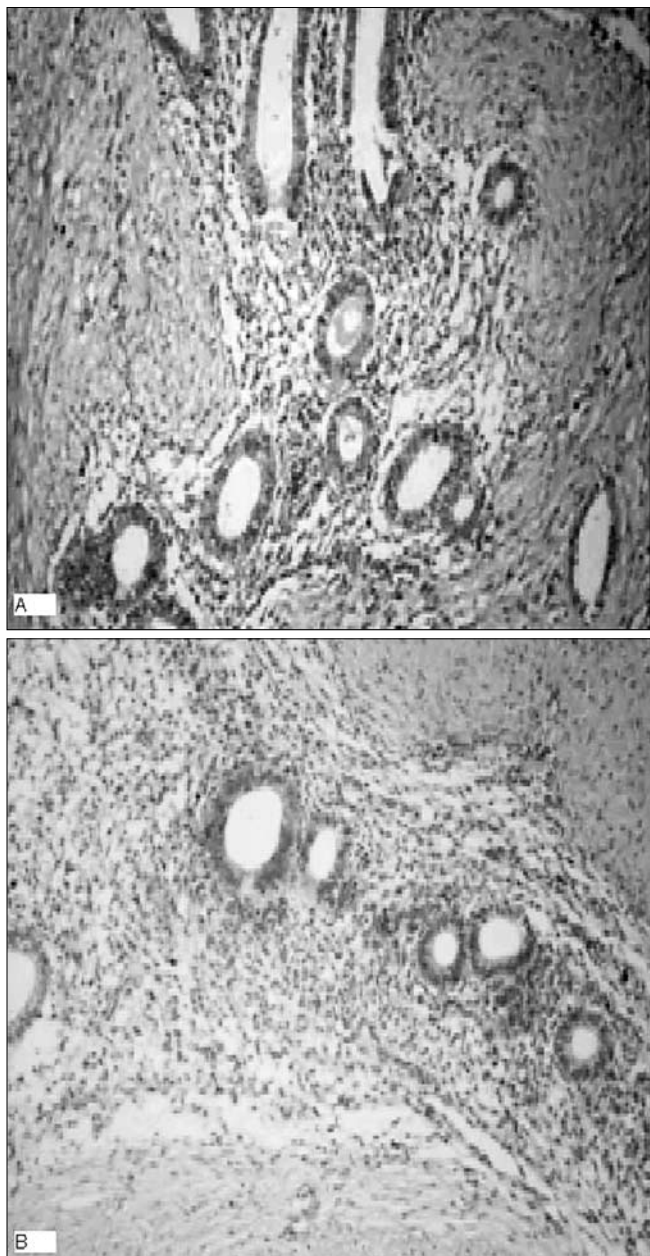


Figure 3. Endometrial stroma and gland structures in the fibroadipose tissue in sections of both specimens (H&E stain, X200).

The time from surgery to the onset of symptoms varies considerably and ranges from months to years with a mean interval from index surgery to presentation of 3.6 years. Physical examination should include focusing on whether the masses are attached to the anterior abdominal wall fascia. In patients with a classic presentation, no further studies are necessary. If the lesion is very large or there is concern regarding fascial involvement and the diagnosis is in doubt, additional studies may be performed, such as ultrasound, fine-needle aspiration, or magnetic resonance imaging [6].

The pathogenesis of IE is best explained by the direct implantation theory: during the surgical procedure, endometrial tissue is seeded into the incision.

Since the medical treatment of IE is usually unsuccessful, surgical excision must be performed, particularly in recurring cases. Wide excisions with at least a 1-cm margin or patch grafting for fascia defects are recommended. Recurrence after resection has been seen in 4.3% of cases and the possibility of malignancy should be considered if the mass grows rapidly or recurs [3, 6].

Since the most common site of an incision lesion is at an end, to prevent direct inoculation, we believe that while suturing the fascia at the end of the incision, the surgeon or assistant must use clean surgical equipment instead of their fingers to retract the subcutaneous tissue in the incision.

Conclusions

The direct implantation theory, coupled with the common presentation of lesions at the end of incisions, suggest that when suturing the fascia at the ends of an incision, clean surgical equipment, rather than fingers, should be used to retract the subcutaneous tissue.

In addition, since our patient reported endometriosis symptoms at varying intervals at both ends of the CS scar, we believe that the entire scar should be evaluated when endometriosis is suspected.

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