Surgical Scar and Rectus Abdominus Muscle Endometriosis: A Report of Two Cases

Cerrahi Skar ve Rektus Abdominis Kas Endometriozisi: İki Olgu Sunumu

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ABSTRACT Endometriosis is the presence of functional endometrial glands and stroma outside the uterine cavity. The abdominal wall is an uncommon site of extrapelvic endometriosis, where it usually develops in an old surgical scar. Common presentation includes a palpable mass, cyclic pain during menstruation, bleeding and discharge. Differential diagnosis includes abscess, lipoma, hematoma, sebaceous cyst, suture granuloma, inguinal hernia, incisional hernia, desmoid tumor, sarcoma, lymphoma and primary or metastatic cancer. Endometriosis involving the rectus abdominis muscle is also a rare condition. We present two cases of extrapelvic endometriosis; one is a surgical skin scar (Pfannenstiel Caesarean section cicatrix) endometriosis and the other is a rectus abdominus endometriosis.

Key Words: Endometriosis; rectus abdominis; cicatrix

ÖZET Endometriozis uterus boşluğu dışında fonksiyonel endometrial bezlerin ve stromanın varlığıdır. Karın duvarı pelvis dışı endometriozisin nadir görüldüğü bir yerdir ve burada genellikle eski bir cerrahi skar üzerinde gelişir. Sık başvuru şekli palpable kitle, adet sırasında siklik ağrı, kanama ve akıntıdır. Ayırıcı tanı apse, lipom, hematom, sebase kist, dikiş granülomu, kasık fıtığı, insizyonel herni, desmoid tümör, sarkom, lenfoma ve primer veya metastatik kanseri içerir. Rektus abdominis kasını tutan endometriozis ayrıca nadir bir durumdur. Biz pelvis dışı endometriozisli iki olgu sunmaktayız; biri cerrahi cilt skarı (Pfannenstiel sezeryan kesi skarı) endometriozisi ve diğeri de bir rektus abdominis endometriozisi.

Anahtar Kelimeler: Endometrioz; rektus abdominis; skatris

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Endometriosis is the presence of functional endometrial glands and stroma outside the uterine cavity.[1,2] Extrapelvic endometriosis refers to endometriosis found at body sites other than the pelvis.[1,2]

Endometriosis of the abdominal wall is a subtype of extrapelvic endometriosis. Common presentation includes palpable mass, cyclic pain during the menstruation, bleeding and discharge. Differential diagnosis includes abscess, lipoma, hematoma, sebaceous cyst, suture granuloma, inguinal hernia, incisional hernia, desmoid tumor, sarcoma, lymphoma and primary or metastatic cancer.[1]

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The abdominal wall is an uncommon site of extrapelvic endometriosis, which usually develops in an old surgical scar. Endometriosis involving the rectus abdominis muscle is also a rare condition.[1]

We present two cases of extrapelvic endometriosis; one is a surgical skin scar [Pfannenstiel Caesarean section (C/S) scar] endometriosis while the other is a rectus abdominus endometriosis. Both patients gave their verbal informed consent regarding publication.

CASE REPORTS

CASE 1

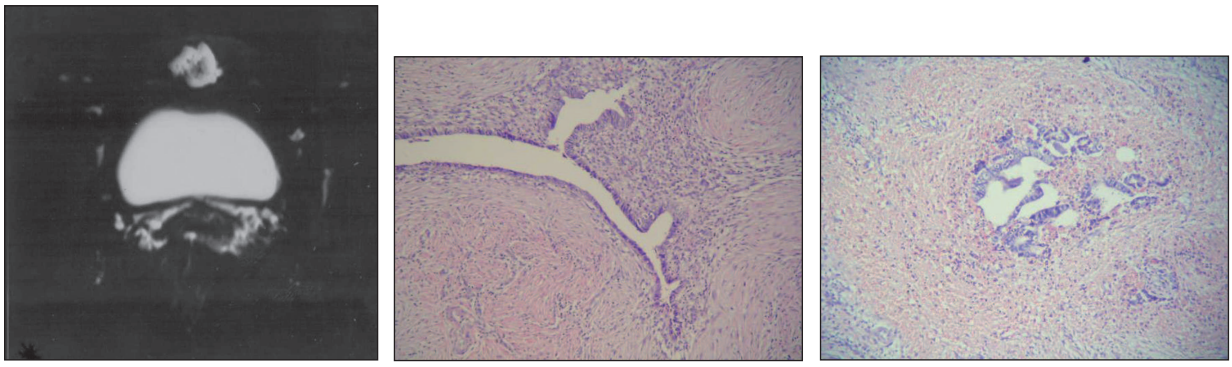
The patient was 31 years old. She had two births with C/S. Her last C/S was seven years ago. She complained of cyclic swelling and pain just below her C/S scar for the previous four months. During physical examination, there was a solid and painful mass of 5 x 5 cm under her C/S scar and a blue-purple skin color over the mass. Magnetic resonance imaging showed a mass of approximately 5 x 5 cm in the subcutaneous tissue (Figure 1A). During surgery, a 5 x 5 cm firm tissue was excised. The histopathologic result confirmed endometriosis (Figure 1B, C). She was discharged from the hospital the day after surgery. We administered two doses of 11.5 mg leuprolide acetate three months apart.

CASE 2

The patient was 26 years old. She had a medical history of a C/S in year 2001 and two laparotomies for endometrioma. She complained of deep, continuous low abdominal pain for six months. Her ultrasound examination showed no evidence of endometrioma in ovaries, and the uterus was normal. On physical examination, she had pain in the lower part of rectus abdominis muscle. There was no mass in the painful region, but the areas which were painful and tender were stiffer than the normal muscle tissue. During surgery; the lower part of rectus muscles were hard and had a black color (Figure 2A). The excision of the abnormal tissue was difficult and was carried out with scalpel rather than scissors. Histopathologic result was endometriosis of rectus muscles (Figure 2B, C). She was discharged from hospital the day after the surgery. We administered two doses of 11.5 mg leuprolide acetate of for three months apart.

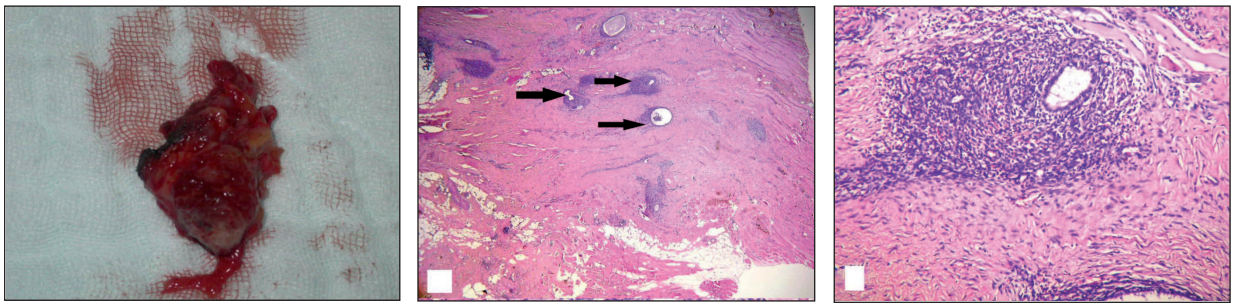
DISCUSSION

Endometriosis, a disorder afflicting as many as 5-10% of women of childbearing age, is defined as the presence of functional endometrial glands and stroma outside the uterine cavity.[1] The most widely accepted theory is that endometriosis results from retrograde menstruation.[2] Extrapelvic endometriosis can involve almost every organ in the human body with a mean age of presentation of 34 years.[2] For cutaneous endometriosis, the implantation of intra-abdominal endometrial cells most likely occurs through lymphatic or vascular spread, or by dislocating endometrial tissue during surgery, such as laparoscopic procedures.[2] These routes ex-



A B C

FIGURE 1: **A:** Magnetic resonance imaging of subcutaneous endometriosis mass.
B: Endometrial gland in scar tissue showing light hemorrage (HE, X20).
C: Damaged endometrial gland in scar tissue showing heavy hemorrage (HE, X20).



A B C

FIGURE 2: **A:** Rectus muscle piece with endometriosis.
B: Multiple endometriosis foci in rectus muscles (Arrows) (HE, X5).
C: Close up view of an endometrial focus. Endometrial gland formation in cellular endometrial stroma (HE, X15).

plain the occurrence of endometriosis at distant locations.[2] Rectus abdominis endometrioma is rare, wherein the endometrial focus is solely confined the rectus abdominis muscle and sparsely reported in literature[2] with only 11 new cases since it was first described in 1993 by Coley.[3] Extrapelvic endometriosis has an incidence of 8.9%, as reported in literature.[1]

It may involve peritoneum, the urinary bladder and the ureter, the lungs, the gallbladder, the breasts, the extremities, the colon and the rectum. Endometriosis of the abdominal wall has an incidence of 4% and is mainly localized at surgical scars, at the umbilicus and rarely at the inguinal canal or the rectus abdominis muscle.[1] The treatment for endometriotic foci in the rectus abdominis muscle is usually surgical,[1,4] but can also be observational depending on the severity of symptoms. Leuprolide acetate is commonly used in intraperitoneal and extraperitoneal endometriosis cases for relieving symptoms. In both cases, we used leuprolide acetate after the operations.

CONCLUSION

Endometriosis should be considered in the differential diagnosis in the work-up of a mass in the abdominal wall of subcutaneous tissue in young women during childbearing age, especially if there is a history of abdominal or pelvic surgery. Although cyclic pain is characteristic for endometriosis; even if the pain is not cyclic but continious the surgeon should still consider possibility of endometriosis.

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