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Original Article

Abdominal wall endometriosis after caesarean section; single center experience

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Abstract

Aim: In this study, we aimed to investigate the characteristics of patients who diagnosed with endometrioma in the incision scar after caesarean section and outcomes of the treatments in our center.

Material and Methods: The data of this study were obtained retrospectively reviewing records of patients who diagnosed with endometriosis and who were treated in Kahramanmaraş University, Medical Faculty, Department of General Surgery between October 2014 and March 2018.

Results: A total of 13 patients were included in the study and all of the patients were operated electively. The mean age of the patients included in the study was 32,15 ± 6,16. The first complaints of the patients were pain in the palpable masses. Abdominal fascia and mass excision was performed in 4 (30.8%) of the patients. In 2 of them (15.4%) defect repair was done with mesh and in 2 of them (15,4%) defect was primary sutured. In all of the patients, the operation time was less than 30 minutes. In the histopathological examination, the mean macroscopic diameter of the masses was 4.98 ± 1.65 cm.

Conclusion: Abdominal wall endometrioma is an uncommon pathology whose etiopathogenesis is not clear. The severity of the disease varies individually. When the endometriosis of the abdominal wall, which usually causes severe pain, is surgically excised, dramatic relief is provided to the patients.

Keywords: Abdominal Wall Endometriosis; Cesarean Section; Incision Scar.

INTRODUCTION

Endometriosis is a pathologic disease characterized by endometrial gland and stroma in other localizations besides the usual uterine localization, which is partly seen in many women and causes periodic pain (1). In menstruating women, an average of 4.9% to 15% of endometriosis has been reported (2,3). Endometriosis is most commonly seen in pelvic localization (4). Other localizations include gastrointestinal system, large omentum, surgical scars, pulmonary system, central nervous system, kidney, skin and nasal cavity (5-9). Clinical presentation is usually severe periodic pain (10).

This pathology, which is rarely seen in the abdominal wall conforming to the post-cesarean incision scar, is often palpable and can be detected by imaging methods such as ultrasonography (USG) and magnetic resonance imaging (MRI) (11). Although many theories have been proposed in etiopathogenesis, it is unclear (12). The definitive diagnosis of this pathology, which is cured by unbloc excision with negative surgical margins, is made by histopathological examination of the surgical specimen (13).

In this study, we aimed to examine pathologic specimens and identify patients with abdominal wall endometriosis after cesarean section retrospectively. We also aimed to investigate the treatment procedures used for and the treatment outcomes of this disease.

MATERIAL and METHODS

The data of this study were obtained from a retrospective review of the files of patients who were operated on at the General Surgery Clinic of Kahramanmaraş University Medical Faculty between October 2014 and March 2018. Their histopathological examinations of the specimens were reported as endometriosis. In addition to that policlinic records and outpatient clinic interviews were

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reviewed retrospectively. Adnexial and extra-adnexial localized endometriosis outside the abdominal wall were excluded from the study. The data on patient's age, pre-existing complaints, first application complaint, palpable mass on the examination, imaging methods used before operation, localization area on the incision line, absence of abdominal fascia excision in operation, , duration of operation, the extent of macroscopic involvement, the local or general anesthesia applied, the length of hospital stay (days), and relief or lasting of symptoms were recorded. On the date of 4th April 2018, approval number 13 was obtained from the Kahramanmaraş University Faculty of Medicine Clinical Investigation Ethics Committee for this study.

RESULTS

Between the dates of the study, endometriosis focus was determined in the histopathological examination reports of 64 patients' specimens. Localizations for endometriosis were defined as 47 cases of adnexial organs, 13 of abdominal wall, 2 of bladder wall, 1 of labium majus and 1 of omentum. Cases of endometriosis other than abdominal wall were excluded, and the remaining 13 patients were included in the study. Clinical and demographic characteristics of the patients included in the study are shown in Table 1 and Table 2.

Table 1. Preoperative characteristics of patients

Average age of patients	Mean±SD	32,15±6,16
Abdominal pain	n(%)	13 (100)
Palpable mass	n(%)	13 (100)
Right sided	n(%)	7 (53,8)
Left sided	n(%)	4 (30,8)
Middle sided	n(%)	2 (15,4)
Preliminary diagnosis Endometriosis	n(%)	12 (92,3)
Preliminary diagnosis Lipoma	n(%)	1 (7,7)

Mean±SD: Mean±Standard Deviation, n: quantity

Table 2. Diagnostic and operational characteristics

USG	n(%)	9 (69,2)
USG and MRI	n(%)	1 (7,7)
No imaging method	n(%)	1 (7,7)
Average mass size	Mean±SD	4,98±1,65
Facial excision required	n(%)	4 (30,8)
Just mass excision without facia	n(%)	9 (69,2)
Mesh repair	n(%)	2 (15,4)
Primary repair	n(%)	11 (84,6)

USG: Ultrasonography, MRI: Magnetic Resonance Imaging, SD:Standard Deviation

The mean age of the patients included in the study was 32,15 ± 6,16. While 92.3% (n = 12) of the patients were diagnosed as endometriosis preoperatively, only one patient was considered to have a lipoma preoperatively but diagnosed with endometriosis due to histopathologic examination of excised specimen. All patients had palpable masses and the first complaint of the patients was pain in the masses. In 7 (53.8%) of the patients, the mass was in the right half of the incision, 4 (30.8%) in the left half, and 2 (15.4%) in the middle. As a preoperative imaging method, only ultrasonography was performed in 9 patients (%69,2), only magnetic resonance imaging (MRI) in 1 (%7,7), USG with MRI in 1 (%7,7), but 2 (%15,4) patients did not undergo any imaging modalities. In the masses of these patients, there was an increase in blood flow. All of the patients' operations were performed under local anesthesia and sedation. Abdominal facia excision was performed in 4 of the patients (30.8%), two of them (15.4%) were treated with mesh repair and 2 (15.4%) with primary repair. In all patients, the duration of the operation was less than 30 minutes. Histopathologic macroscopic diameter of the masses was 4,98 ± 1,65 cm. All of the patients were discharged on the first postoperative day. Patients were checked at the outpatient clinic postoperative 7-9th day and one month later. At the end of the 1-month follow-up, all of the patients were found to have improved symptoms of pain.

DISCUSSION

Endometriosis was first described by Rokitansky in 1861 as a benign disturbance caused by ectopic implantation of the endometrial gland and stroma out of the uterine cavity (14). The etiopathogenesis of extraadnexal endometriosis remains a controversial issue (15). Many hypotheses have been proposed to explain the etiopathogenesis. The theory of implantation associated with the direct invasion of endometrial cells into the subcutaneous layer of the abdominal wall during gynecologic pelvic surgery, the direct inoculation of cells into the abdominal wall during pelvic surgery, and vascular spreading theory associated with the development of endometrioma as a result of endometrial lymphatic and hematogenous spread of endometrial cells are only a few of the theories known today (16,17). Endometriosis is classified as internal and external, when endometrial tissue is found in uterine smooth muscle is called internal endometriosis and endometriosis in pelvic genital organs and extraadnexal localizations are called external endometriosis (18). Again, endometriosis can be classified as pelvic and extrapelvic endometriosis according to the localization of the pathology (9).

Pelvic endometriosis may be present in the fallopian tubes, ovaries, and pelvic peritoneum (19). Extrapelvic endometriosis can localize anywhere in the body such as the gastrointestinal tract, pulmonary structures, urinary system, skin, central nervous system and abdominal wall (5–9). The presence of endometriosis in the abdominal wall is a very rare condition and is found in 0.03-1.08% of women who underwent pelvic and gynecologic surgery (20). In our study, endometriomas were only localized on the right, left or middle part of the cesarean incision scar. In our study, if endometriomas were caused by hematogenous or lymphoid spread, it was expected to be seen in other parts of the incision. However, in all cases, we encountered in just a few cases in which lesions were associated with each other in a part of the incision, and we were able to resect these lesions as a whole. For this reason,

we think that direct transplantation of endometrial cells is responsible for the etiopathogenesis of endometrioma development on cesarean scars. The most common clinical presentation of endometriosis is cyclic pain during menstruation (21). There is a fixed palpable mass unrelated to menstrual periods at localization where the majority of patients have pain (22). Pain is often proportional to the size of the mass. Changes in the size of the mass should suggest the diseases that should be considered in the differential diagnosis of endometriosis. Abdominal hernia may be considered when the mass is growing or shrinking, but malignancies should be considered when there is a progressive increase in the size of the mass (23-27).

Other conditions that should be considered in the differential diagnosis include suture reaction, abscess and sebaceous cysts (24). All of the patients in the study had large masses and periodic pain attacks that could be felt by examination. One of the shortcomings of our study is the lack of examination of patients with complaints of the pain in the cesarean section scars but no palpable mass. We do not know if the millimetric endometrioma foci can be detected in these patients when we perform a histopathological examination of the pain localizations of the patients in this group. We used at least one of the USG or MR imaging methods in the preoperative evaluation of the 11 patients except the 2 patients in the study. The increase in the amount of blood all over the masses detected in the pathology of these patients was a striking finding. In the surgical treatment of abdominal wall endometriosis and prevention of recurrences, large excision of the mass with negative margin should be performed (25). Most of the defects resulting from endometriosis excision can be repaired as primary, whereas those with wide defects where repair of the primary is not possible can be repaired with the help of mesh (26-27). For only two of the patients in the study, we had to use a mesh to repair the defect. In the medical treatment, anti-inflammatory agents, oral contraceptives, gonadotropin releasing hormone analogs, aromatase inhibitors and radiofrequency ablation treatments are applied (27-29).

CONCLUSION

Abdominal wall endometrioma is a very rare pathology and the etiopathogenesis is not clear. The severity of this disease varies individually, often causing very severe pain. The results of the appropriate surgical excision are really good and provide a dramatic relief of the pain in the patients.

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