In the name of God

Shiraz E-Medical Journal
Vol. 13, No. 4, October 2012

http://semj.sums.ac.ir/vol13/oct2012/91001.htm

Abdominal Wall Endometriosis: Case Report and Review of Literature

Jafar Malmir1, Davood Sharifi2*

[1] Resident, Department of Emergency Medicine, Mashhad University of Medical Sciences, Mashahd, Iran.
[2] Assistant Professor, Department of Emergency Medicine, Mashhad University of Medical Sciences, Mashahd, Iran.

* Corresponding Author: Davood Sharifi, Department of Emergency Medicine, Mashhad University of Medical Sciences, Mashahd, Iran, E-mail: jafarmalmir2@yahoo.com

Received for Publication: April 22, 2012, Accepted for Publication: September 8, 2012.

Abstract
The abdominal wall is an uncommon site of extra pelvic endometriosis, which usually develops in a previous surgical scar and it should be considered in the differential diagnosis of any abdominal swelling. Endometriosis involving the rectus abdominis muscle is a very rare event and its rarity explains the incomplete nature of the reports in the literature. The true incidence of endometriosis is unknown, but it is estimated that 15 percent of females have some degree of the disease. It is second only to dysmenorrhea as the etiology for cyclic pain in females of reproductive age.(1)
We report the case of which came to our observation, a woman with endometriosis of the abdominal wall.
The diagnosis was made by the histopathological analysis of the specimens.

Keywords: Abdominal Wall; Endometriosis; Rectus Abdominis Muscle; Surgery

Introduction

Endometriosis is defined as the presence of functional endometrial tissue outside the uterine cavity and the myometrium (2, 3), and the disease is caused by peritoneal regurgitationand implantation of viable

endometrial cells in menstrual debris.

Endometriosis is the abnormal existence of functional uterine mucosal tissue outside of the uterine cavity and musculature while extra pelvic endometriosis refers to endometriosis found at body sites other than the pelvis.

Patients typically present in the third decade with pelvic pain related to menses. Endometrial glands and stroma are typically located on the ovaries and pelvic peritoneum, but may be located in sites distant to the pelvis. As the disease progresses and forms pelvic adhesions, a chronic, constant pain syndrome may develop.

There are many theories for the development of endometriosis. The most accepted at this point is retrograde menstruation with seeding of endometrial glands to distant sites. Other theories include lymphatic and hematogenous spread.

Endometriosis of the abdominal wall is a subtype of extra pelvic 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.

We present the clinical findings, the diagnostic procedures, and the management of woman with endometriosis of rectus abdominis muscle.

Case Presentation

A 25 year old woman presented to the Emergency Department with complaints of lower abdominal pain from one month ago, that has augmented since yesterday, the Pain that was constant and worse with movement, but any relation to eating. There was no previous history of similar pain .She was suffering from nausea, but there was no associated vomiting, diarrhea or change in bowel habits. She denied fever, chills, night sweats. She denied any history of dysuria or urinary frequency. Her history revealed no complaint of dysmenorrhea or infertility. The patient reported a polymenorrhea during last month.

There was no significant past medical or surgical history unless she had undergone caesarean sections 4 years ago. She did not report any anticoagulant use. She denied any history of trauma or sport activity before admission.

Mean arterial pressure was 100/60 mmHg, pulse rate was 58/min, Temp was 37.

Physical examination revealed tenderness within the hypogastre, but there was no muscular rigidity or rebound and any mass or organomegaly was found. Bowel auscultation revealed no pathologic sound.

The haemoglobin level 12 g/dL, hematocrit 37.7 %, platelet 259000/UL, activated partial tromboplastin time (aPTT) 21.8 sec, prothrombin time (PT) 17.7 sec and international normalized ratio (INR) 1.45.

B.HCG was negative, and the other biochemical tests were normal.

Ultrasound (US) examination of the abdomen confirmed a nonmobile heterogeneous mass on the right side of the abdomen extending below the hypogastria (Figure 2). The imaging study of computerized tomography (CT) revealed a hypo density on the left rectus sheath without a mass effect. MRI depicted the lesions as high signal intensity in left rectus muscle (Figure 1).

She was referred to our surgical services for further evaluation. And after a ultrasound-guided biopsy from the lesion patient was discharged from the hospital on the 3th day of admission.

She was rehospitalised and the muscle tissue was removed with clear surgical resection margins.

Currently the patient, without any medical treatment, is in follow up for one month with any symtom of the disease.

Figure 1: Ultrasound of Soft Tissues of the Anterior Abdominal Wall Shows a Mixed Echogenic Mass

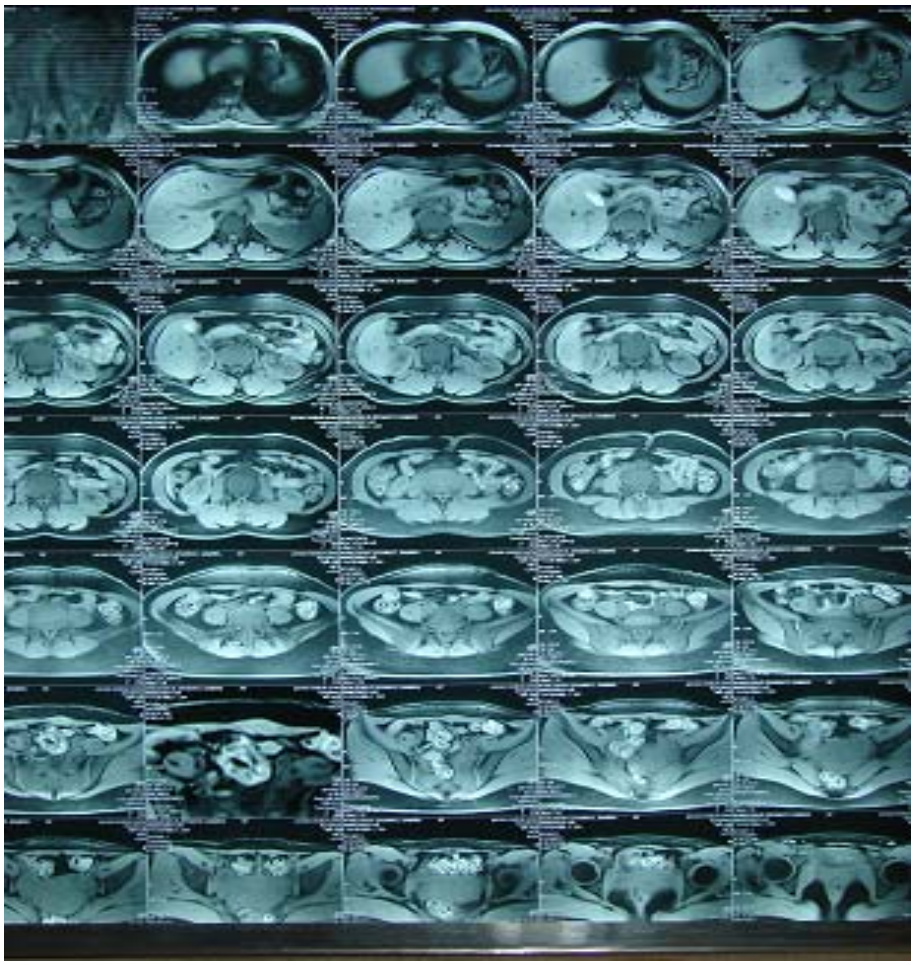

Figure 2: Axial CT-image Through the Lower Pelvis After Intravenous Contrast Administration Showing The Contrast-Enhanced Mass in the Left Lower Rectus Abdominis Muscle.

Discussion

Endometriosis is a relatively common gynecologic problem in women of reproductive age. Two leading theories exist for its cause; one hypothesis suggests that mesenchymal cells with retained multipotential may, under the proper circumstances, undergo metaplasia into endometriosis. The other theory states that endometrial cells may be transported to ectopic sites forming an endometrioma.(4)

When stimulated by estrogens, these cells may proliferate until they become symptomatic.

Extra pelvic endometriosis has been described in nearly all body cavities and organs, but its most frequent location is in the abdominal wall.(4) Although an incidental case of spontane-

ous endometriosis in a scar less abdominal wall has been reported, it is usually associated with operations in which the uterus is opened. In our patient the endometriomas seems to be developed in association with a cesarean section scar or the etiologic concept of iatrogenic transport. The incidence following cesarean section is reported to be 0.03-0.4 %, and following hysterotomy, the incidence is 2%.(5)

In general, the characteristic clinical symptom of endometriosis is cyclic pain associated with menses.

However, this pain was constantly present and not associated with the menstrual cycle. The noncyclic nature of pain in endometriosis of the abdominal wall has occasionally been reported by others (6) but has generally been regarded as atypical, which may explain why it is clinically often misdiagnosed, as was the case in our patient.

Most patients also presented with a palpable mass at the site of maximum tenderness in the region of the surgical scar. Sonography showed these masses to be solid, hypo echoic lesions in the abdominal wall and to contain internal vascularity on power Doppler examination.

These sonographic findings are nonspecific, and a wide spectrum of disorders presenting as a mass in the abdominal wall should be considered in the imaging differential diagnosis. This should include neoplasm, such as a sarcoma, desmoid tumor, lymphoma, or metastasis, and nonneoplastic causes, such as a suture granuloma, ventral hernia, hematoma, or abscess.(7)

The CT and MR characteristics of abdominal wall endometriosis are nonspecific also, both showing a solid enhancing mass in the abdominal wall. The major role of CT and MRI may be to depict the extent of the disease preoperatively.

Therapeutic options for abdominal wall endometriosis are pharmacologic therapy with hormonal agents, such as progestogens, or surgical excision. The success rate of medical therapy has been reported to be low, offering only temporary alleviation of symptoms often followed by recurrence after cessation of the drug. Wide surgical excision therefore is the treatment of choice.(8)

Conclusions

Endometriosis of the abdominal wall must be considered in the differential diagnosis in women with painful abdominal wall mass. The symptoms does not have always-cyclic attribute

and the imaging procedures are not specific for the diagnosis. The extensive surgical excision remains the treatment of choice.

References

1. E. TJ, Kelen GD, Md S, J S. A Comprehensive Study Guide 6th edition. Emergency Medicine2010.
2. Eskenazi B, Warner ML. Epidemiology of endometriosis. Obstetrics and gynecology clinics of North America. 1997;24(2):235-58.
3. Woodward PJ, Sohaey R, Mezzetti TP. Endometriosis: Radiologic-Pathologic Correlation1. Radiographics. 2001;21(1):193-216.
4. Dwivedi AJ, Agrawal SN, Silva YJ. Abdominal wall endometriomas. Digestive diseases and sciences. 2002;47(2):456-61.
5. Sengul I, Sengul D, Kahyaoglu S, Kahyaoglu I. Incisional endometriosis: A report of 3 cases. Can J Surg. 2009;52:444-5.
6. Ideyi S, Schein M, Niazi M, Gerst P. Spontaneous endometriosis of the abdominal wall. Digestive surgery. 2003;20(3):246-8.
7. Blanco RG, Parithivel VS, Shah AK, Gumbs MA ,Schein M, Gerst PH. Abdominal wall endometriomas. The American journal of surgery. 2003;185(6):596-8.
8. Teng CC, Yang HM, Chen KF, Yang CJ, Chen LS, Kuo CL. Abdominal wall endometriosis: an overlooked but possibly preventable complication. Taiwanese Journal of Obstetrics and Gynecology. 2008;47(1):42-8.