

# A Case Report of A Larg Rectus Muscle Size Endometriosis

Atieh Mirfendereski<sup>1\*</sup> , Khadigeh Abadian<sup>1,2</sup> 

1. Sarem Fertility & Infertility Research Center [SAFIR], Sarem Women's Hospital, Tehran, Iran
2. PhD Candidate of Reproductive Health, Students' Research Committee, Department of Midwifery and Reproductive Health, Shahid Beheshti University of Medical Sciences, Tehran, Iran

## Article Info

 10.30699/jogcr.3.4.37

**Received:** 2018/05/19;

**Accepted:** 2018/07/27;

**Published Online:** 16 Sep 2018;

Use your device to scan and read the article online



## Corresponding Information:

Atieh Mirfendereski, Sarem Fertility & Infertility Research Center [SAFIR], Sarem Women's Hospital, Tehran, Iran

**Email:** [atieh.mirfendereski@gmail.com](mailto:atieh.mirfendereski@gmail.com)

**Tel:** 021-47023435



Copyright © 2019. This is an original open-access article distributed under the terms of the Creative Commons Attribution-noncommercial 4.0 International License which permits copy and redistribution of the material just in noncommercial usages with proper citation.

## ABSTRACT

**Background & Objective:** Given the impact of endometriosis on patients' social lives, marital relationships, and fertility and on reducing these people's quality of life, its proper diagnosis and treatment seem vital. This study aimed to report a case of rectus muscle endometriosis and the way it was managed.

**Case Report:** The patient was a 30-year-old woman who had a history of dysmenorrhea and chronic pain for 2 years after her first delivery which was performed by cesarean section. During ultrasonography conducted on the anterior abdominal wall of the midline, a mass indicating endometriosis was observed in the abdominal wall at the site of the cesarean section incision scar and in the thickness of the rectus muscle. After the termination of pregnancy and during the cesarean section, the mass was removed and the patient's symptoms subsided.

**Conclusion:** To manage endometriosis a patient's complete records and imaging techniques can be effective.

**Keywords:** Endometriosis, Rectus abdominis, Cesarean section

## Introduction

Endometriosis refers to endometrial tissue implantation, including stromal tissue and epithelial tissue, outside the uterus, the occurrence and definitive treatment of which are still unclear (1). Endometriosis disrupts patients' social lives, marital relationship, and fertility; it affects their normal lives reducing their quality of life (2). Fragmentation pain, one of the most important symptoms of this disease, had been considered a psychological issue for years (3). Endometriosis is the common cause of 10% of cases of chronic pelvic pain. The prevalence of endometriosis has been reported 70-90% in cases of chronic cyclic and non-cyclic pelvic pain (2,3). The annual incidence of endometriosis in population-based studies was reported to be 0.1% to 0.2%. In some studies, the estimated prevalence of endometriosis among women in the general population was between 1.8% and 3.3% (5,6).

Endometriosis is considered in women with reduced fertility, dysmenorrhea, dyspareunia, and/or chronic pelvic pain, even though patients may not indicate any of the mentioned symptoms in some advanced cases of the disease (1,2).

Endometriosis is predominantly seen in women of reproductive age; however, it is also reported in

adolescents and postmenopausal women treated with hormones. Since estrogen levels rapidly decrease around the age of 50, the possibility of occurrence of endometriosis significantly decreases; however, new cases of endometriosis have been identified beyond the reproductive age, especially when endogenous hormones exist (4). With regard to its appearance, endometriosis varies from a small lesion on healthy pelvic organs to large ovarian endometrial cysts that alter the anatomy of the fallopian tubes and ovaries and cause extensive adhesions that often occur in the intestine, bladder, and uterus (1,2).

Among the most common sites for endometriosis implementation, visceral pelvic and peritoneum can be mentioned. Vagina, appendix, stomach, liver, chest, bladder, umbilical cord, and vulvulus are the sites where endometriosis is less frequent (7). The rectus abdominis muscle endometriosis is also very rare. Less than 20 cases of the rectus abdominis muscle endometriosis have been reported; the first case was diagnosed in 1984 (8). The main causes of the occurrence of extrapelvic endometriosis (including rectus abdominis muscle endometriosis) can be iatrogenic transplantation of endometrium during surgery and lymphatic and vascular

migrations of the endometrial tissue (9,10). Endometriosis is regarded as a common pathology which causes the most damage to the structure of the ovaries (up to 80%) and the sites where endometriosis is less frequent are uterosacral ligament, rectovaginal septum, pelvic peritoneum, anterior rectosigmoid region, volvulus, vagina, appendix, stomach, liver, chest, bladder, umbilical cord, spinal canal, pleural, and lung (7). Several theories have been proposed to explain endometriosis, such as the implantation or reflex theory, the direct development theory, the coelomic metaplasia theory, the inductive theory, the resting fetus theory, the lymphatic and vascular metastasis theory, and the theory of composites, combination of planting, and lymphatic and vascular metastases. Additionally, intraperitoneal endometriosis can be explained by the retrograde theory (9). Anterior abdominal wall endometriosis usually occurs during female surgical interventions (often cesarean section) and with an iatrogenic potential for implantation. This is while the cases of anterior abdominal wall endometriosis without having a history of previous surgery has also been reported (13,14). Diagnosing endometriosis is difficult due to its non-specific clinical symptoms and the differential diagnosis includes lymphadenopathy, abscess, inguinal hernia, primary cancer or metastasis, lymphoma, lipoma, hematoma, sarcoma, dermoid tumor, subcutaneous cysts, and sebaceous cysts (9). However, endometrium of the rectus abdominis muscle should always be considered in women of reproductive age, especially in women whose mass can be felt in the anterior abdominal wall and their menstruations are accompanied by cyclic pain, especially if there is a history of previous gynecological surgery (especially cesarean section or laparoscopy) (7,15).

Regardless of the recent advances in imaging techniques, making a preoperative diagnosis of endometriosis is difficult and it is often diagnosed after carrying out histological examinations on the removed sample (11). All medical treatments for endometriosis are effective in reducing pain and symptoms; however, the pain symptoms are reduced as long as the medical treatments are used and the pain always recurs due to discontinuing of the medications. Therefore, the medications are to be taken over a long period (10,11).

The only effective and safe treatment method, especially for potentially malignant lesions, is removing the endometrium by surgery (12). The present study is a case report introducing a pregnancy accompanied by rectus abdominis muscle endometriosis diagnosed and removed at the time of cesarean section. The symptoms and complications of endometriosis reported before the delivery subsided after it.

The selective treatment for rectus abdominis muscle endometriosis is the localized removal of endometriosis so that its margins become free of any lesions. The surgical removal should include removing 5 to 10 mm of the healthy surrounding tissue as a surgical margin and caution should be exercised to eliminate the lesion and to prevent the recovery of the microscopic tissue of the endometrium (13,14). Table 1 illustrates similar reports of rectus muscle endometrioses. Until today, medical treatments for endometrium in the abdominal wall have not been successful and have only caused temporary relief. This is while the recurrence of the lesion is possible and it usually occurs within a year and is probably due to the lack of proper removal of the lesion (14,15).

## Case Report

The patient was a 30-year-old G2P1 woman, weighed 70 kg with a height of 166 cm, referred for receiving prenatal care. She had a history of dysmenorrhea and chronic pain for 2 years after her first delivery was performed by cesarean section. Due to severe abdominal pain, ultrasonography was performed, which showed a 16×20×27 irregular hypoechoic mass in the abdominal wall at the site of the cesarean section incision scar and in the thickness of the rectus muscle indicating the existence of endometriosis. The patient mentioned suffering from severe abdominal pain during her menstrual cycles. During the pregnancy, the patient's pains subsided and she did not have any pain-related complaints.

Moreover, the patient also mentioned a history of breast cyst which was examined using imaging techniques and diagnosed as a fibroadenoma of the breast. Her pregnancy continued without any problems and the routine care was received. The pregnant woman was prepared for cesarean section considering necessary measures for possible adhesions of endometriosis. Blood reservation was done. During the cesarean section, there was a 4 cm× 5 cm definite lesion in the form of endometriosis in the lower abdominal wall on the rectus muscle. At first, the embryo was removed normally. Then, the rectus abdominis muscle was completely removed and homeostasis was performed. The sample was sent for pathological examinations, the results of which confirmed the existence of endometriosis. Finally, the pregnant mother was discharged without any special problems. During the post-partum follow-up, she did not have any pain-related complaints.

**Table 1. Similar reports of rectus muscle endometrioses**

Author	Source	Year	Surgical type	Description	The results of the treatment
Sergent <i>et al.</i>	Journal de Gynecologie, Obstetrique et Biologie de la Reproduction	2006	Removal of the mass	After removing the mass, the pathology diagnosis indicated endometriosis.	The clinical symptoms were improved.
Karaman <i>et al.</i>	Ulusal Cerrahi Dergisi	2014	Removal of the mass	After removing the mass, the pathology diagnosis indicated endometriosis.	The clinical symptoms were improved.
Vukšić <i>et al.</i>	Case Rep Surg.	2016	Removal of the mass	After removing the mass, the pathology diagnosis indicated endometriosis.	The clinical symptoms were improved.

## Discussion and Conclusion

To diagnose this disease different methods are being used worldwide however since there has been advances in imaging techniques, they have become so useful. But imaging symptoms are not specific; so, it is recommended to utilize other clinical symptoms as well.

In this case, the patient referred to the history of dysmenorrhea and chronic pain for 2 years after the first birth. These symptoms were consistent with the symptoms of endometriosis. So, according to the patient's history and clinical suspicion, ultrasound was requested. In sonography, the Hypo-Ekoe mass was observed indicating endometriosis and justifying abdominal pain. According to the conditions, the patient was considered for cesarean section for the second birth. After the end of cesarean, the abdominal rectus muscle was examined and the mass was observed. The mass was removed and the specimen was sent to the pathology which was confirmed by pathology. During the post-parturition follow-up, the woman did not complain about any discomfort. Therefore, considering a patient's complete records and getting aid from imaging techniques are effective in managing endometriosis properly.

## Acknowledgements

The authors would like to thank the head of Sarem Women's Hospital, Dr Abotaleb Saremi and all the staff working at this hospital.

## Conflict of Interest

Authors declared no conflict of interests.

## References

- Novak E. Berek & Novak's gynecology. Lippincott Williams & Wilkins; 2012.
- Jones HW, Rock JA. Te Linde's operative gynecology. Lippincott Williams & Wilkins; 2015 Jul 10.
- Gymyrek GB, Sieradzka U, Goluda M, Sozanski R, Jerzak M, Zbyryt I, Chrobak A, Chemonska-Soyta A, Flowcytometric evaluation of intracellular cytokine synthesis in peripheral mononuclear cells of women with endometriosis. *Immunol Invest*. 2008; 37[1]: 43-61. [DOI:10.1080/08820130701554962] [PMID]
- Parente Barbosa C, Bentes De Souza AM, Bianco B, Christofolini DM. The effect of hormones on endometriosis development. *Minerva Ginecol*. 2011; 63: 375-86.
- Gylfason JT, Kristjansson KA, Sverrisdottir G, Jonsdottir K, Rafnsson V, Geirsson RT. Pelvic endometriosis diagnosed in an entire nation over 20 years. *Am J Epidemiol*. 2010; 172: 237-43. [DOI:10.1093/aje/kwq143] [PMID]
- Ferrero S, Arena E, Morando A, Remorgida V. Prevalence of newly diagnosed endometriosis in women attending the general practitioner. *International Journal of Gynecology & Obstetrics*. 2010 Sep;110(3):203-7. [DOI:10.1016/j.ijgo.2010.03.039] [PMID]
- Karaman H, Bulut F, Özaşlamacı A. Endometriosis externa within the rectus abdominis muscle. *Turkish Journal of Surgery/Ulusal cerrahi dergisi*. 2014;30(3):165. [DOI:10.5152/UCD.2014.2035] [PMID] [PMCID]
- Amato M, Levitt R. Abdominal wall endometrioma: CT findings. *Journal of computer assisted tomography*. 1984 Dec;8(6):1213-4. [DOI:10.1097/00004728-198412000-00040] [PMID]
- Calo PG, Ambu R, Medas F, Longheu A, Pisano G, Nicolosi A. Rectus abdominis muscle endometriosis Report of two cases and review of the literature. *Annali italiani di chirurgia*. 2012 Jun.
- Granese R, Cucinella G, Barresi V, Navarra G, Candiani M, Triolo O. Isolated endometriosis on the rectus abdominis muscle in women without a history of abdominal surgery: a rare and intriguing finding. *Journal of minimally invasive gynecology*. 2009 Nov 1;16(6):798-801. [DOI:10.1016/j.jmig.2009.08.005] [PMID]
- Angioni S, Cofelice V, Pontis A, Tinelli R, Socolov R. New trends of progestins treatment of endometriosis. *Gynecological Endocrinology*. 2014 Nov 1;30(11):769-73. [DOI:10.3109/09513590.2014.950646] [PMID]
- Sergent F, Baron M, Le JC, Scotté M, Mace P, Marpeau L. Malignant transformation of abdominal wall endometriosis: a new case report. *Journal de gynecologie, obstetrique et biologie de la reproduction*. 2006 Apr;35(2):186-90. [DOI:10.1016/S0368-2315(06)76394-3]
- Esinler I, Guven S, Akyol D, Guven EG, Taskiran C, Ayhan A. Abdominal wall endometriosis without previous surgery.

Journal of Obstetrics and Gynaecology. 2004 Jan 1;24(8):931-  
 . [DOI:10.1080/0144361040019187] [PMID]

14. Vukšić T, Rastović P, Dragišić V. Abdominal wall endometrioma after laparoscopic operation of uterine

endometriosis. Case reports in surgery. 2016;2016.  
 [DOI:10.1155/2016/5843179] [PMID] [PMCID]

15. Ideyi SC, Schein M, Niazi M, Gerst PH. Spontaneous endometriosis of the abdominal wall. Digestive surgery. 2003;20(3):246-8. [DOI:10.1159/000070392] [PMID]

#### How to Cite This Article:

Mirfendereski A, Abadian K. A Case Report of A Large Rectus Muscle Size Endometriosis . jogcr. 2018; 3 (4) :177-180

#### Download citation:

BibTeX | RIS | EndNote | Medlars | ProCite | Reference Manager | RefWorks