Abdominal wall endometriosis: A rare case report

Stefanos K Stefanou¹, Christos K Stefanou^{2*}, Apostolos K Paxinos³, Polyxeni Oikonomou⁴, Thomas Tsiantis⁵,Nikolaos Tepelenis⁶, Maria Alexandra Kefala ⁷,Kostas Tepelenis⁸

¹ Department of Surgery, Henry Dunant Hospital Center, Athens, 11527, Greece. ²Department of Surgery, General Hospital of Filiates, Filiates, 46300, Greece. ³ Department of Urology, General Hospital of Preveza, Preveza, 48100, Greece. ⁴Department of Cardiology, General Hospital of Ioannina "G. Xatzikosta", Ioannina, 45500, Greece.⁵ Pediatrician, Ioannina, 45500, Greece. 5 Department of Obstetrics and Gynecology, University Hospital of Ioannina, Ioannina, 45500, Greece. ⁶ Department of Pathology, Agia Sofia Children's Hospital, Athens, 11527, Greece. 7 Pediatrician, Ioannina, 45500, Greece. ⁸ Department of Surgery, University Hospital of Ioannina, Ioannina, 45500, Greece. **Corresponding author:** Christos K Stefanou MD, MSc, PhD (c)

Abstract

Uterine mucosal tissue that is present outside of the uterus is referred to as endometriosis. Endometriosis can be either extrapelvic or pelvic. When endometriosis manifests as a confined mass, the term "endometrioma" is used. Endometriomas on the abdominal wall typically develop as a secondary development in surgical scars. An abdominal wall mass accompanied by menstruation discomfort is the most typical presentation. We present a case report of a 26 year old woman with endometrioma in the right groin, which removed surgically.

Key words: endometriosis, endometrioma, abdominal wall endometriosis

Date of Submission: 08-09-2022 Date of Acceptance: 25-09-2022

I. Introduction

Endometriosis refers to the presence of endometrial cells outside the womb, including glands and stroma [1]. The most common locations of endometriosis are the ovaries, fallopian tubes, and peritoneal cavity.Abdominal wall endometriosis (AWE) occurs between 0.03 and 1% of the population. According to reports, AWE is the most common site for extrapelvic disease [2]. The primary symptom is recurrent periodic pain associated with menstruation [3]. Hernias, abscesses, lipomas, desmoid tumors, and cancers are all included in the differential diagnosis [4].

II. **Case Presentation**

A 26-year-old woman comes to the emergency department with reported pain in the right groin. She claims that the pain worsens on her menstruation days and improves once it stops. During the clinical examination, a hard mass was detected in the groin. According to the patient's history, shehad an inguinal hernia repaired without the use of mesh at an early age. An MRI was undertaken, and a mass with endometrial characteristics was identified. The tumour is surgically removed from the patient. Mesh is not needed to fill the gap left by the denervation. The patient discharged from the hospital on the first postoperative day, in excellent condition. The histopathology findings identified endometriosis. Gynaecological evaluation and follow-up of the patient was recommended.

III. Discussion

Endometriosis mainly affects reproductive women and has a 6-10% incidence in the general population. However, the exact incidence of endometriosis is difficult to capture as the diagnosis requires biopsy or visual identification of the endometrium during laparoscopy or laparotomy [5]. First, Meyer reports the presence of AWEin 1903 [8]. It is the most common site of extrapelvic disease, with an incidence of 0.03–1% [3,6]. Although the exact pathogenesis remains unclear, several theories have been proposed. According to the direct transplantation theory, endometrial cells may be delivered to the abdominal wall during procedures affecting the uterine cavity, such as hysterectomy or cesarean. Coelomic metaplasia theory suggests that cells in the mesothelial lining of the abdominal peritoneum can differentiate into endometrial cells. It seems that hormonal and immunological factors stimulate this procedure. Finally, lymphaticand vascular metastasis theory proposes that endometrial cells enter circulation and are deposited in the abdominal wall [2,4]. Inguinal endometriosis is a rare presentation of extra-pelvic endometriosis that typically appears as a small-sized, tender and fixed inguinal mass. The treatment of choice for AWE is wide local excision of the mass with at least 1 cm negative margins [7]. Mesh reconstruction should be taken into account for patients with an abdominal mass \geq 5 cm on ultrasound or with the involvement of the abdominal wall fascia and muscle [4,5]. The reported recurrence rate is approximately 5% [4,7]. Higher recurrence rates are associated with large lesions and rectus muscle involvement[7]. Medical treatment is ineffective in treating AWE. The recurrence rate is high, especially after the cessation of the drug [4,7]. Pain and abdominal mass associated with menses are AWE's two most typical symptoms. Abdominal ultrasound is the first-line modality for diagnosing AWE, while CT and MRI disclose the extent of the disease and the involvement of the rectus muscle. At least a wide local excision with negative margins of 1 cm is the preferred treatment. Surgeons should maintain a high suspicion of the disease in reproductive women with circular pain, palpable abdominal mass, and a history of uterine-relating surgery [8]. If possible, avoiding the use of mesh is recommended.

References

- Blanco RG, Parithivel VS, Shah AK, Gumbs MA, Schein M, Gerst PH. Abdominal wall endometriomas. Am J Surg. 2003 Jun;185(6):596-8.
- [2]. Ecker AM, Donnellan NM, Shepherd JP, Lee TT. Abdominal wall endometriosis: 12 years of experience at a large academic institution. Am J Obstet Gynecol. 2014 Oct;211(4):363.e1-5. doi: 10.1016/j.ajog.2014.04.011. Epub 2014 Apr 13.
- Burney RO, Giudice LC. Pathogenesis and pathophysiology of endometriosis. Fertil Steril. 2012 Sep;98(3):511-9. doi: 10.1016/j.fertnstert.2012.06.029. Epub 2012 Jul 20.
- [4]. Stratton P, Berkley KJ. Chronic pelvic pain and endometriosis: translational evidence of the relationship and implications. Hum Reprod Update. 2011 May-Jun;17(3):327-46. doi: 10.1093/humupd/dmq050. Epub 2010 Nov 23.
- [5]. Pachori G, Sharma R, Sunaria RK, Bayla T. Scar endometriosis: Diagnosis by fine needle aspiration. J Cytol. 2015 Jan-Mar;32(1):65-7.
- [6]. Ding, Y. and Zhu, J. (2013), A retrospective review of abdominal wall endometriosis in Shanghai, China. International Journal of Gynecology & Obstetrics, 121: 41-44.
- [7]. Pados G, Tympanidis J, Zafrakas M, Athanatos D, Bontis JN. Ultrasound and MR-imaging in preoperative evaluation of two rare cases of scar endometriosis. Cases J. 2008 Aug 18;1(1):97. doi: 10.1186/1757-1626-1-97.
- [8]. Stefanos K Stefanou, Kostas Tepelenis, Christos K Stefanou, George Gogos-Pappas, Christos Tsalikidis, Konstantinos Vlachos, Abdominal wall endometriosis: a case report, Journal of Surgical Case Reports, Volume 2021, Issue 4, April 2021, rjab055

Christos K Stefanou MD, et. al. "Abdominal wall endometriosis: A rare case report." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 21(09), 2022, pp. 07-08.