

## Abdominal Wall Endometriosis: A Case Report

Yassine Fakhri<sup>1\*</sup>, Dounya Douah<sup>2</sup>, Ayoub Madani<sup>2</sup>, Mohammed Ouazni<sup>2</sup>, Mehdi Soufi<sup>2</sup>

<sup>1</sup>General Surgery Department, Guelmim Regional Hospital, Morocco

<sup>2</sup>Digestive Surgery Department, Agadir University Hospital, Faculty of Medicine and Pharmacy, Ibn Zohr University, Agadir, Morocco

DOI: <https://doi.org/10.36347/sasjs.2025.v11i06.016>

| Received: 14.03.2025 | Accepted: 21.04.2025 | Published: 21.06.2025

\*Corresponding author: Yassine Fakhri

General Surgery Department, Guelmim Regional Hospital, Morocco

### Abstract

### Case Report

Abdominal wall endometriosis, also referred to as scar endometrioma, is a infrequent condition, in most cases developing following previous cesarean section or pelvic surgery. The incidence of scar endometrioma is approximated at 0.03%-1% of all women with previous cesarean delivery. The predominant clinical picture is cyclic pain. Because of a variety of similar conditions and a relative rarity, a considerable delay is frequently noted from the onset of symptoms to proper treatment. We present a case of a 34-year-old patient with scar endometrioma after two previous cesarean deliveries.

**Keywords:** Abdominal Wall Endometriosis, Scar Endometrioma, Cesarean Section, Cyclic Pain, Surgical Excision, Ectopic Endometrial Tissue.

**Copyright © 2025 The Author(s):** This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## INTRODUCTION

Endometriosis is a prevalent condition in which endometrial tissues, both glands and stroma, are present outside the uterine cavity [1]. Commonly, endometriosis is situated in the ovaries, fallopian tubes, and tissues around the uterus and ovaries, while extrapelvic involvement is uncommon [2]. Abdominal wall endometriosis, the most frequently affected site of extrapelvic involvement, has an occurrence of 0.03–1% [3]. The etiology is not fully understood, and multiple hypotheses have been put forward regarding its disease mechanism [2, 4].

The primary symptom is recurring pain linked to the menstrual cycle [5]. Differential diagnosis encompasses hernias, abscesses, lipomas, desmoids tumors and malignancies [6].

Treatment modalities include surgical excision of the lesion and/or hormonal therapies. Wide surgical excision is still the treatment of choice in the literature [7].

## CASE PRESENTATION

We report on a case of a 34-year-old patient presenting with low abdominal and inguinal pain. Patient history was uneventful, with two cesarean deliveries 9 and 5 years before. During the past 2-3 years, the patient had been complaining of low abdominal and left inguinal

pain. The symptoms were cyclic with peak near menses. Routine laboratory analyses revealed hypochromic microcytic anemia, while other parameters were normal. Ultrasonographic examination of the pelvis revealed no pathology, while ultrasonographic examination of the left inguinal region showed inhomogeneous oval tumefaction suspect of abdominal wall hematoma. Computerized tomography revealed tumefaction of the distal part of the left muscle rectus abdominis, measuring 32x21x20 mm. Wide excision of the endometrioma was performed (Figure). The histopathology was suggestive of endometriosis as the diagnosis, with no evidence of atypia or malignancy. The postoperative period was uneventful, and continuous gestagen therapy was administered for 6 months. At one-year follow up, there was no recurrence of endometrioma.



**Fig. 1: Resected surgical specimen demonstrating the excised mass**

## DISCUSSION

Endometriosis is defined as the presence of ectopic endometrial tissue outside the uterine cavity [8]. It is classified as internal (within the uterine muscles) or external (in the pelvic organs and other parts of the body) according to the involvement of the uterine muscle layer. The most common pelvic organs affected are the ovaries, cul-de-sac, and fallopian tubes [9]. Extrapelvic locations include the gastrointestinal tract, pulmonary system, urinary system, abdominal wall, skin, and even the central nervous system [9]. The precise etiology of endometriosis remains controversial, and many theories have been proposed, including direct transplantation, coelomic metaplasia, cellular immunity, vascular and lymphatic metastasis, implantation and retrograde menstruation [10].

Abdominal wall endometriosis, also known as scar endometrioma, is a rare manifestation of extragenital endometriosis [11]. The incidence of scar endometriosis following hysterotomy ranges from 1.08% to 2%, whereas its occurrence after cesarean section is estimated at 0.03% to 1% [12]. A thorough patient history and clinical examination are crucial for diagnosis and are often highly indicative of scar endometriosis, particularly in cases presenting with the classic triad of a palpable mass, cyclic pain, and a history of cesarean section or gynecologic surgery [13].

Abdominal ultrasound is considered the first-line imaging modality for assessing masses and mass-like lesions in the abdominal wall. Abdominal wall endometriosis typically appears as a heterogeneous hypoechoic mass with an irregular shape and ill-defined margins. It is predominantly solid, although it may occasionally exhibit a cystic component. In some cases, vascularization can be detected using color Doppler imaging [6, 14].

Computerized tomography and magnetic resonance imaging of the abdomen provide useful information for choosing the best method for closing the fascia defect during operation, as they reveal the extent of the disease and the involvement of the fascia of the rectus muscle. The imaging findings on computerized tomography encompass a solid softtissue heterogeneous mass with mild-to-moderate enhancement after the administration of intravenous contrast material. On magnetic resonance imaging, it is portrayed as a hyperintense or isointense heterogeneous lesion on both T1- and T2-weighted images. Feeding vessels can be observed on occasion on both imaging modalities [6-14].

Abdominal wall endometriosis needs to be distinguished preoperatively from hernias, abscesses, lipomas, desmoids tumors and malignancies. It is worth noting that the malignant transformation of endometriosis is rare, with an incidence of 1% of cases [14].

Medical treatment with the use of oral contraceptive pills, progestogens, and danazol is not efficacious to cure the patient and gives only incomplete relief in symptoms and, simultaneously, it can bring about several adverse effects [15]. The clinical improvement using hormonal treatment observed for endometriotic implants at other sites has not been observed for abdominal wall endometriosis [16]. Treatment of choice for abdominal wall endometriosis is considered to be wide surgical excision with at least a 1cm margin [17].

Effective surgical techniques and adequate care during cesarean delivery might help prevent scar endometriosis [18]. It has been proposed that, at the conclusion of the procedure (especially during manipulation of the uterus and fallopian tubes), meticulous cleansing with a high-pressure saline solution before wound closure could reduce the relative likelihood of developing endometriosis [19].

There is high possibility of recurrence of endometriosis, subsequently follow up in patients with this disorder is needed. Additionally, possibility of malignancy should be ruled out in cases of continual recurrence [20].

## CONCLUSION

Abdominal wall endometriosis is a rare and infrequent pathological disorder, with a higher likelihood in women with a prior history of cesarean delivery. AWE should be taken into account as a key diagnostic consideration in women experiencing a cyclically painful lump or mass near or at the site of the surgical scar. Extensive surgical excision, including the surrounding fibrotic tissue, should be carried out, and histopathological analysis of the lesion confirms the diagnosis.

**Informed Consent:** The patient has provided informed consent.

**Conflicts of Interest:** The authors declare no conflicts of interest regarding the publication of this paper

## REFERENCES

1. Blanco RG, Parithivel VS, Shah AK, Gumbs MA, Schein M, Gerst PH. Abdominal wall endometriomas. *Am J Surg* 2003;185:596–8.
2. Gachabayov M, Horta R, Afanasyev D, Gilyazov T. Abdominal wall endometrioma: our experience in Vladimir, Russia. *Niger Med J* 2016;57:329.
3. 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;211: 363.e1–5.
4. Gidwaney R, Badler RL, Yam BL, Hines JJ, Alexeeva V, Donovan V, et al. Endometriosis of abdominal and pelvic wall scars: multimodality

- imaging findings, pathologic correlation, and radiologic mimics. *RadioGraphics* 2012;32: 2031–43.
5. Burney RO, Giudice LC. Pathogenesis and pathophysiology of endometriosis. *Fertil Steril* 2012;98:511–9.
  6. Stratton P, Berkley KJ. Chronic pelvic pain and endometriosis: translational evidence of the relationship and implications. *Hum Reprod Update* 2011;17:327–46.
  7. Bektaş H, Bilsel Y, Sari YS, et al.: Abdominal wall endometrioma: a 10-year experience and brief review of the literature. *J Surg Res.* 2010, 164:77–81.
  8. Goel P, Sood SS, Dalal A, Romilla: Cesarean scar endometriosis - report of two cases . *Indian J Med Sci.* 2005, 59:495–8.
  9. Akbulut S, Sevinc MM, Bakir S, Cakabay B, Sezgin A: Scar endometriosis in the abdominal wall: a predictable condition for experienced surgeons. *Acta Chir Belg.* 2010, 110:303–7.
  10. Sampson JA: The development of the implantation theory for the origin of peritoneal endometriosis. *Am J Obstet Gynecol.* 1940, 40:549–57.
  11. Strelec M, Dmitrovic R, Matkovic S: Trocar scar endometriosis . *Gynaecol Perinatol.* 2009,18:34–5.
  12. Tangri MK, Lele P, Bal H, Tewari R, Majhi D: Scar endometriosis: a series of 3 cases . *Med J Armed Forces India.* 2016, 72:185–8.
  13. Chang Y, Tsai EM, Long CY, Chen YH, Kay N: Abdominal wall endometriomas. *J Reprod Med.* 2009, 54:155–9.
  14. Horton JD, Dezee KJ, Ahnfeldt EP, Wagner M. Abdominal wall endometriosis: a surgeon's perspective and review of 445 cases. *Am J Surg* 2008;196:207–12.
  15. Zondervan KT, Becker CM, Koga K, Missmer SA, Taylor RN, Viganò P. Endometriosis. *Nat Rev Dis Primers.* 2018 Jul 19;4(1): 9.
  16. Carsote M, Terzea DC, Valea A, GheorghisanGalateanu AA. Abdominal wall endometriosis (a narrative review). *Int J Med Sci.* 2020;17(4): 536–42.
  17. Hasan A, Deyab A, Monazea K, Salem A, Futooh Z, Mostafa MA *et al.* Clinico-pathological assessment of surgically removed abdominal wall endometriomas following cesarean section. *Ann Med Surg (Lond).* 2021 Jan 21;62: 219–24.
  18. Uçar MG, Şanlıkan F, Göçmen A. Surgical treatment of scar endometriosis following cesarean section, a series of 12 cases. *Indian J Surg.* 2015;77(Suppl 2): 682–6.
  19. Moazeni-Bistgani M. Recommending different treatments as preventive measures against incisional endometrioma. *J Family Reprod Health.* 2013;7(3): 105–8.
  20. Alberto VO, Lynch M, Labbei FN, Jeffers M. Primary abdominal wall clear cell carcinoma arising in a caesarean section scar endometriosis. *Ir J Med Sci.* 2006;175(1): 69–71.