SAS Journal of Medicine
Abbreviated Key Title: SAS J Med
ISSN 2454-5112
Journal homepage: https://saspublishers.com

OPEN ACCESS

Medicine

Malignant Transformation of Abdominal Wall Endometriosis: A Case Report

Intissar Belrhali[1, 2*], Oumaima Lamsyah[1, 2], Stephane Ruck[3], Siham Lkhoyaali[1, 2], Hanane Inrhaouen[1, 2], Sarah Naciri[1, 2], Saber Boutayeb[1, 2], Ibrahim El Ghissassi[1, 2], Hind Mrabti[1, 2], Hassan Errihani[1, 2]

[1]National Institute of Oncology Rabat, Morocco
[2]Faculty of Medicine and Pharmacy-Mohamed V University of Rabat
[3]Medical Oncology Department, EMILE DURKHIEM Hospital Center Épinal, France

DOI: https://doi.org/10.36347/sasjm.2024.v10i08.010 | **Received:** 04.07.2024 | **Accepted:** 10.08.2024 | **Published:** 13.08.2024

***Corresponding author:** Intissar Belrhali
National Institute of Oncology Rabat, Morocco

Abstract **Case Report**

Background: The carcinogenic potential of parietal endometriosis is poorly understood, making it difficult to diagnose and uncertain how to treat it. The prognosis for this complication of an abdominal scar is rather poor. In the literature, the survival rate only reaches 57% with a short follow-up of 20 months. The most common histological form is clear cell carcinoma, followed by endometrioid carcinoma. Radical surgery is the main treatment. Good operating technique with appropriate care during cesarean sections can prevent this complication of endometriosis. The starting point is usually a caesarean section scar. We report the case of a 44-year-old woman with a history of caesarean section who presented with recurrent parietal endometriosis, which transformed into clear cell adenocarcinoma.

Keywords: Cesarean section, Clear cell carcinoma, Endometrioid carcinoma, Endometriosis. Chemotherapy.

I. INTRODUCTION

Endometriosis is an extrauterine location of functional endometrial tissue consisting of glands and stroma [1]. It is estimated to account for less than 1% of all endometriotic pathology [2]. In general, the differential diagnosis is made with a desmoid tumour [3]. Magnetic resonance imaging data, history of pelvic surgery and the presence of a painful nodule with a catamenial rhythm form a highly suggestive triad with excellent positive predictive value [4].

The prevalence of endometriosis of the abdominal wall on caesarean scar was estimated to be between 0.03 and 0.15% in a study carried out in 1989 (5) to 0.86% in a study of caesarean complications in 122 caesarean section cases in 1990 [6] and 0.2% in a third study in 1995 [7].

More recently, in 2018, the prevalence of endometriotic nodules on caesarean scars was estimated to be between 0.3% and 1% [8].

II. CLINICAL CASE

This is a 44-year-old women with a history of Crohn's disease and endometriosis. She was treated for endometriosis for several years, then stopped her specific treatment and went back to a standard pill. She developed a swelling of the anterior abdominal wall, lateralised to the right, which gradually increased in size and became very painful. Imaging in 2022 showed a parietal endometriosis nodule on a caesarean scar.

In May 2023, an abdominal and pelvic scan confirmed tumour progression with invasion of the rectus abdominis muscle, initially suggestive of endometriosis or a desmoid tumour. A pelvic MRI in the same month confirmed this progression with external iliac lymphadenopathy (Figure 1 & 2). A biopsy in June 2023 revealed a clear cell adenocarcinoma of gynaecological origin. A PET scan confirmed hypermetabolism of the mass with iliac lymphadenopathy and pulmonary micronodules.

The patient received initial chemotherapy with carboplatin and taxol, with a partial response to all courses, but the tumour subsequently progressed.

On 04/11/2024, she was urgently admitted due to a confusional episode associated with severe hypercalcaemia, requiring stabilisation of her general

condition. The resumption of chemotherapy is difficult due to his altered general condition.

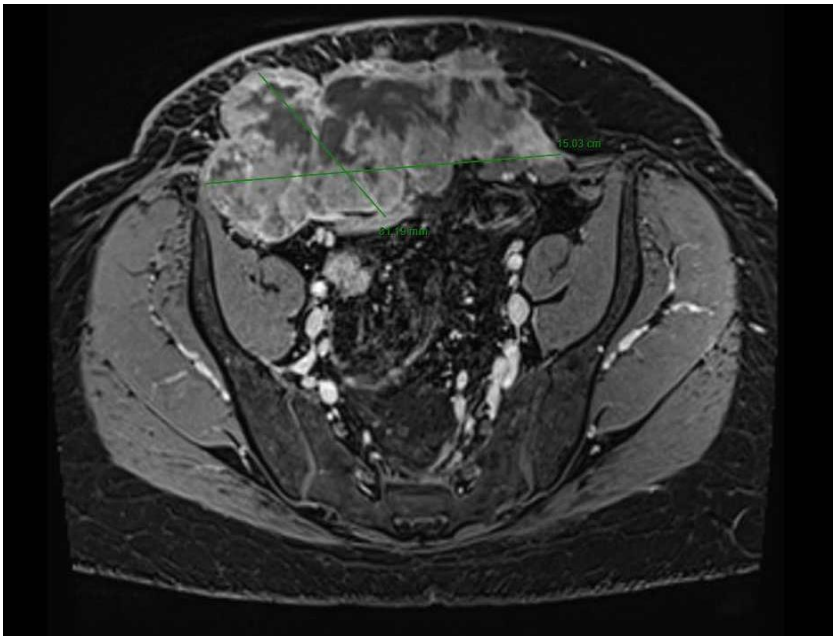

Figure 1: 3 D, T1 Axial Sequence, Showing a tumor with mixed tissue and significant necrosis, invading the entire right rectus abdominis muscle and extending to the superficial left rectus abdominis muscle. The tumor measures 15 cm in the axial plane and 8 cm in the anteroposterior plane

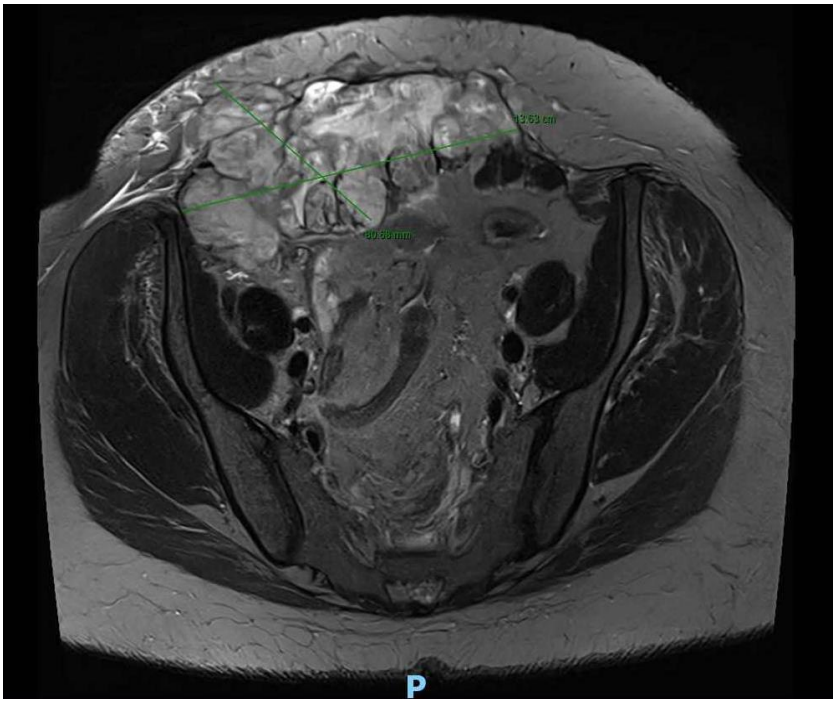

Figure 2: T2 Axial Sequence showing a tumor mass in the right rectus abdominis muscle. Its largest dimensions are 15 cm in the axial plane and 8 cm in the anteroposterior plane

III. DISCUSSION

Endometriosis is the implantation of functional endometrial tissue outside the uterus. Endometriosis of the abdominal wall is rare, accounting for only 0.03 to 2% of extra-genital endometriosis. It is associated with pelvic endometriosis in 26% of cases [9].

Magnetic resonance imaging (MRI): is the specific study because of its high contrast resolution. Recent haemorrhage is hyperintense on T1 and T2 and haemosiderin deposits secondary to old haemorrhage are responsible for the hypersignal on the 2 sequences [9].

Histological examination confirms the diagnosis and excludes malignant, primary or secondary neoplasia or other benign lesion. It shows the presence of a superficial epithelium of the endometrium with a reactive proliferation of stromal vessels in the muscular tissue. These hypervascularised endometrial implants develop fibrosis around the haemosiderin deposited by cyclical bleeding and form a solid mass in the muscle.

The initial pathology of our observation was a parietal endometriosis lesion. In addition to the histological confirmation of the lesion, the history of caesarean section, the association with pelvic endometriosis, in this case a benign right ovarian endometrioma, were indeed typical and suggestive [10].

The histological nature of our patient's tumour, a CCC, does not surprise us. In 195 cases of cancerisation of an endometriosis lesion reported in the Anglo-Saxon literature and their own experience of 10 cases, Heaps *et al*., identified 69% of endometrioid carcinomas (EC), 13.5% of CCC, 11.6% of sarcomas and 6% of lesions of other histological types, irrespective of the location of the tumour [2]. Although the number of cancers known to occur in parietal endometriosis is small, the CCC is clearly one of the anatomical peculiarities of endometriosis.

The treatment of choice is surgery with wide excision with healthy margins, which allows diagnostic confirmation, eliminates the risk of malignant transformation of the lesion and the risk of recurrence of the endometrioma [13, 14].

Regarding our study, our patient presents with locally advanced clear cell adenocarcinoma, treatment with chemotherapy is maintained, she benefited from 1st line chemotherapy such as taxol-carboplatin after progression she was a candidate for a 2nd line with lenvatinib-pembrolizumab according to the recommendations in metastatic endometrial cancer [15, 16].

ACKNOWLEDGEMENT

My colleague Oumaima Lamsyah and I would like to thank Dr Stephane RUCK for giving us the extraordinary opportunity to do this work and for his unconditional support.

IV. CONCLUSION

The prognosis of this complication of abdominal scarring is rather poor. The most common histological type is clear cell carcinoma, followed by endometrioid carcinoma. Radical surgery is the mainstay of treatment. Good surgical technique with appropriate care during caesarean section can prevent this complication of endometriosis.

REFERENCES

1. Al Shakarchi, J., & Bohra, A. (2015). Endometrioma in a virgin abdomen masquerading as an intramuscular lipoma. *Journal of surgical case reports*, *2015*(3), rjv023.
2. Heaps, J. M., Nieberg, R. K., & Berek, J. S. (1990). Malignant neoplasms arising in endometriosis. *Obstetrics & Gynecology*, *75*(6), 1023-1028.
3. Carneiro, C., Hurtubis, C., Singh, M., & Robinson, W. (2009). Desmoid tumors of the right rectus abdominus muscle in postpartum women. *Archives of Gynecology and Obstetrics*, *279*(6), 869-873.
4. Elhabachi, B., & Brix, M. (2020). Endométriose pariétale: l´ imagérie par résonance magnétique est-elle suffisante pour opérer?. *PAMJ-Clinical Medicine*, *4*(2). Doi: 10.11604/pamj-cm.2020.4.2.24198.
5. Wolf, G. C., & Slngh, K. B. (1989). Cesarean scar endometriosis: a review. *Obstetrical & gynecological survey*, *44*(2), 89-95.
6. Yao, X. Y. (1990). Sequelae in 4122 cases of cesarean section. *Zhonghua fu chan ke za zhi*, *25*(1), 15-17.
7. Singh, K. K., Lessells, A. M., Adam, D. J., Jordan, C., Miles, W. F. A., Macintyre, I. M. C., & Greig, J. D. (1995). Presentation of endometriosis to general surgeons: a 10-year experience. *Journal of British Surgery*, *82*(10), 1349-1351.
8. Merlot, B., Ploteau, S., Abergel, A., Rubob, C., Hocke, C., Canis, M., ... & Collinet, P. (2018). Endométriose extra-génitale: atteinte pariétales, thoraciques, diaphragmatiques et nerveuses. RPC Endométriose CNGOF-HAS. *Gynécologie Obstétrique Fertilité & Sénologie*, *46*(3), 319-325.
9. Blanco, R. G., Parithivel, V. S., Shah, A. K., Gumbs, M. A., Schein, M., & Gerst, P. H. (2003). Abdominal wall endometriomas. *The American journal of surgery*, *185*(6), 596-598.
10. Reddi Rani, P., Soundararaghavan, S., & Rajaram, P. (1991). Endometriosis in abdominal scars—review of 27 cases. *International Journal of Gynecology & Obstetrics*, *36*(3), 215-218.
11. Bazot, M., Nassar, J., Daraï, E., Thomassin, I., Cortez, A., Buy, J. N., ... & Marsault, C. (2005). Valeurs diagnostiques de l'échographie et de l'IRM pour l'évaluation de l'endométriose pelvienne profonde. *Journal de Radiologie*, *86*(5), 461-467.
12. Wasfie, T., Gomez, E., Seon, S., & Zado, B. (2002). Abdominal wall endometrioma after cesarean section: a preventable complication. *International surgery*, *87*(3), 175-177.
13. Stein, L., Elsayes, K. M., & Wagner-Bartak, N. (2012). Subcutaneous abdominal wall masses: radiological reasoning. *American Journal of Roentgenology*, *198*(2), W146-W151.
14. Francica, G., Scarano, F., Scotti, L., Angelone, G., & Giardiello, C. (2009). Endometriomas in the region of a scar from Cesarean section: sonographic appearance and clinical presentation vary with the

size of the lesion. *Journal of Clinical Ultrasound*, *37*(4), 215-220.

15. Powell, M. A., Filiaci, V. L., Hensley, M. L., Huang, H. Q., Moore, K. N., Tewari, K. S., ... & Miller, D. S. (2022). Randomized phase III trial of paclitaxel and carboplatin versus paclitaxel and ifosfamide in patients with carcinosarcoma of the uterus or ovary: an NRG oncology trial. *Journal of Clinical Oncology*, *40*(9), 968-977.
16. Makker, V., Colombo, N., Casado Herráez, A., Santin, A. D., Colomba, E., Miller, D. S., ... & Lorusso, D. (2022). Lenvatinib plus pembrolizumab for advanced endometrial cancer. *New England Journal of Medicine*, *386*(5), 437-448.