

DOI: <http://dx.doi.org/10.18203/2320-1770.ijrcog20181371>

## Case Report

# Scar endometriosis: not a rarity now a day

Mishu Mangla, Ruchira Nautiyal, Deepmala Deepmala, Jashan Chhatwal\*

Department of Obstetrics and Gynaecology, Swami Rama Himalayan University, Dehradun, Uttarakhand, India

**Received:** 05 February 2018

**Accepted:** 07 March 2018

**\*Correspondence:**

Dr. Jashan Chhatwal,

E-mail: [dr.jashanchhatwal@gmail.com](mailto:dr.jashanchhatwal@gmail.com)

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

### ABSTRACT

Endometriosis at the site of previous surgery scar is much on the rise now-a-days mainly due to increased rate of caesarean sections. Generally, it presents as a triad of underlying mass at the incision site, cyclical menstrual scar pain with or without discharge from scar site, and history of previous gynecological or obstetric surgery leads to the preoperative diagnosis. In rare cases, the clinical presentation is atypical, and diagnosis is made after surgical excision. Here we discuss a case of scar endometriosis that presented to us with complaint of greenish coloured discharge from a lesion below the primary scar site 5 years after the primary surgery. Through this article, authors wish to discuss the etiology, management and preventive measures for scar endometriosis.

**Keywords:** Endometriosis, Previous cesarean, Scar

### INTRODUCTION

Endometriosis is defined as the presence of functioning endometrial tissue, including both glands and stroma, outside of the uterine cavity. It is most commonly found in the pelvic cavity with ovaries, posterior cul-de-sac, pelvic ligaments, bowel and recto vaginal septum being the most common sites. Unusual sites include thorax, nervous system, urinary tract and even the skin.<sup>1</sup> Endometriosis of the subcutaneous tissue and scar is very rare with an incidence reported to be 0.03 - 0.4% of all women undergoing caesarean sections.<sup>2</sup> Although scar endometriosis has been most commonly reported after caesarean sections, other gynecologic surgeries like myomectomy, hysterectomy, hysterotomy, tubal surgeries, appendectomy, amniocentesis, or episiotomy have also been reported to be followed by scar endometriosis.<sup>3</sup>

Here author discuss a case of scar endometriosis developing in the scar of previous caesarean section, 5 years after the primary surgery.

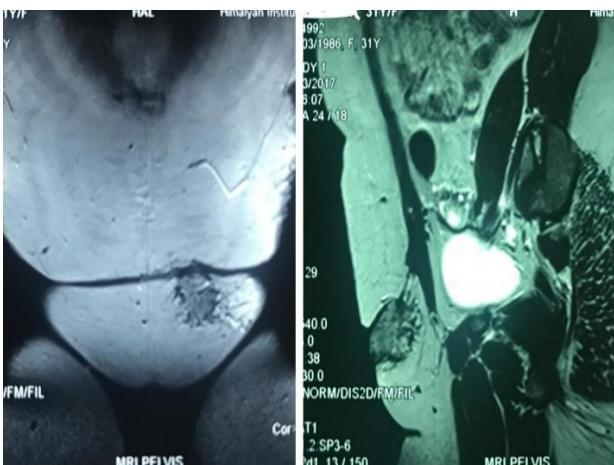
### CASE REPORT

A 31 years old female came to Gynecology outpatient department with the complaint of mass just below the site of old caesarean section scar, from last 3 years. She gave a history that the mass was slowly and progressively increasing in size from last 3 years, painful and discharged greenish colored fluid at the time of menstruation. Her past history was significant as she had undergone 3 caesarean sections, last caesarean 5 years ago.

Examination revealed a 6 × 6 cm hyper-pigmented mass with 4-5 punctate spots on it (Figure 1). The lesion was about 2 cm below the left margin of the caesarean scar. It was firm in consistency, fixed to the underlying subcutaneous tissue, tender and on pressing discharged reddish green colored fluid. There was no local or regional lymph node enlargement. An MRI was done which showed a 6 × 6 × 6 cm intensely enhancing area in anterior abdominal wall on left side of midline extending up to subcutaneous tissue (Figure 2).



**Figure 1: Hyper-pigmented mass with punctate spots.**



**Figure 2: MRI scan showing enhanced area in anterior abdominal wall on left side of midline extending up to subcutaneous tissue.**



**Figure 3: Excision of lesion with 1cm surrounding tissue and excised tissue.**

A probable diagnosis of scar endometriosis was made due to the typical cyclic relation of clinical features with

menstruation. After all pre-operative preparations, patient was posted for surgical excision of the lesion. Around 1 cm of healthy surrounding tissue was also removed (Figure 3) and sent for histopathological examination, which confirmed the diagnosis of scar endometriosis.



**Figure 4: Post-operative healed surgical scar.**

Post-operative period was uneventful. Stitch removal was done on post-operative day 8 and she was discharged in satisfactory condition, the same day. Follow up examination showed no recurrence (Figure 4).

## DISCUSSION

Scar endometriosis, although a rare disease is very much on the rise now-a-days, mainly because of increasing rate of caesarean sections. Time interval between primary surgery and the development of scar endometriosis is highly variable. Cases have even been reported to occur even 20 years after surgery.<sup>4</sup> Most commonly, it involves only the skin and sub cutaneous tissue. Involvement of muscle and rectus sheath is rare.<sup>5</sup>

A typical clinical triad has been proposed consisting of a history of gynaecologic surgery, periodic variation of clinical symptoms in relation to the menstrual cycle and mass lesion near or inside the surgical scar.<sup>6</sup>

A number of theories have been proposed to explain the origin of endometriotic tissue in the post-operative scars. Lymphatic or hematogenous dissemination, coelomic metaplasia and even iatrogenic implantation of endometrial tissue during surgery are a few of them.<sup>3</sup>

The incidence is higher after hysterotomies and when caesarean section was performed before term and before the onset of labour pains because the decidua in early gestation have higher pleuri-potential properties and result in more cellular replication and the immune tolerance to the fetal antigens mainly develops during later half of pregnancy.<sup>7</sup>

Clinical diagnosis is difficult, as the cases usually approach the physician many years after primary surgery and even the clinical features may be deceptive.<sup>8</sup> Most common symptom is a palpable mass near the site of previous scar, which may also increase in size or become painful during menstruation. Rarely even, there may be discharge of blood or greenish colored fluid from the mass during menstruation, as was present in our case. However, the pain may even be non-cyclic and a palpable mass is not always present, further adding to clinical deception. In the past also lesions of scar endometriosis have been confused with lipoma, hematoma, stitch granuloma, incisional hernia, and even stitch abscess. Most often a high index of suspicion is needed for diagnosis of this condition. Ultrasonography, computed tomography scan, magnetic resonance imaging and also fine needle aspiration cytology have been useful for the diagnosis and also to know the extent of lesion.<sup>9-11</sup> MRI has been considered to be better than CT scan, especially for smaller lesions, mainly because of its high spatial resolution and also to better differentiate between the planes of muscle and sub cutaneous tissue.

Treatment of choice is wide local excision. Although, clear recommendations are lacking, excision of around 1 cm margin of healthy tissue, so as to prevent recurrence and risk of malignant transformation, has been suggested by some authors.<sup>12</sup> Sclerotherapy, by ultrasound guided injection of ethanol locally in the lesion has also been proposed as a treatment modality.<sup>13</sup> This has the benefit of avoiding a large defect in the abdominal wall, especially if the lesion is big in size. Medical treatment in the form of oral contraceptive pills, danazol and GnRH analogs have also been tried, but with limited success. A recurrence rate of around 4.3% has been reported in a few studies.<sup>12</sup>

Authors in the past have even suggested some measures that if brought into regular practice can reduce the risk of development of scar endometriosis. These measures should be incorporated into practice especially while training young obstetricians. The suture material used in closing the uterine wall should not be used in closing the layers of abdomen.<sup>14</sup>

The abdominal wound should be thoroughly washed and irrigated with liberal amount of normal saline, especially at both the corner sites, so that if some endometrial tissue is accidentally implanted there, it is washed off.<sup>15</sup> The sponge used to clean the endometrial cavity after the removal of placenta should be discarded and in no way be used for abdominal wound as this leads to increased amount of endometrial tissue being implanted at the site.

Another interesting recommendation made is that if a patient of scar endometriosis is willing for any future pregnancies, the excision should preferably be delayed to the time of after the next indicated caesarean, so as to prevent recurrence.<sup>16</sup>

## CONCLUSION

Endometriosis of the scar should thus always be kept in the differential diagnosis of women presenting with a mass at or near the site of previous scar, especially after a history of gynaecological or obstetric surgery in the past.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: Not required*

## REFERENCES

1. Pikoulis E, Karavokiros J, Veltsista K, Diamantis T, Griniatsos J, Basios N, et al. Abdominal scar endometriosis after caesarean section: report of five cases. *West Indian Med J.* 2011;60(3):351-3.
2. Ozel L, Sagiroglu J, Unal A, Unal E, Gunes P, Baskent E, et al. Abdominal wall endometriosis in the cesarean section surgical scar: a potential diagnostic pitfall. *J Obstet Gynaecol Res.* 2012;38:526e30.
3. Sengul I, Sengul D, Kahyaoglu S, Kahyaoglu I. Incisional endometriosis: a report of 3 cases. *Can J Surg.* 2009;52:444e5.
4. Wasfie T, Gomez E, Seon S, Zado B. Abdominal wall endometrioma after cesarean section: a preventable complication. *Int Surg.* 2002;87:175-7.
5. Celik M, Bülbüloglu E, Büyükbese MA, Cetinkaya A. Abdominal Wall Endometrioma: Localizing in Rectus Abdominus Sheath. *Turk J Med Sci.* 2004;34:341-3.
6. Esquivel-Estrada V, Briones-Garduno JC, Mondragon-Ballesteros R. Endometriosis implant in cesarean section surgical scar. *Cir Cir.* 2004;72:113-5.
7. Gupta P, Gupta S. Scar Endometriosis: a Case Report with Literature Review. *Acta Med Iran.* 2015;53(12):793-5.
8. Sharma M, Nautiyal R, Chaturvedi J, Bhargava S. Scar endometriosis following caesarean section: a rare case report. *Int J Reprod Contracept Obstet Gynecol.* 2015;4:884-6.
9. Francica G, Giardiello C, Angelone G, Cristiano S, Finelli R, Tramontano G. Abdominal wall endometriomas near cesarean delivery scars: sonographic and color Doppler findings in a series of 12 patients. *J Ultrasound Med.* 2003;22:1041-7.
10. Amato M, Levitt R. Abdominal wall endometrioma: CT findings. *J Comput Assist Tomogr.* 1984;8:1213-4.
11. Gupta RK, Naran S. Aspiration cytodiagnosis of endometriosis in an abdominal scar after caesarean section. *Acta Cytol.* 1995;39:603-4.
12. 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.
13. Bozkurt M, Cil AS, Kara D. Intramuscular Abdominal Wall Endometriosis Treated By

- Ultrasound-Guided Ethanol Injection. *Clin Med Res.* 2014;15.
14. Chatterjee SK. Scar endometriosis: a clinicopathologic study of 17 cases. *Obstet Gynecol.* 1980;56:81-4.
  15. Wasfie T, Gomez E, Seon S, Zado B. Abdominal wall endometrioma after cesarean section: a preventable complication. *Int Surg.* 2002;87:175-7.
  16. Teng CC, Yang HM, Chen KF, Yang CJ, Chen LS, Kuo CL. Abdominal wall endometriosis: an overlooked but possibly preventable complication. *Taiwan J Obstet Gynecol.* 2008;47(1):42-8.

**Cite this article as:** Mangla M, Nautiyal R, Deepmala D, Chhatwal J. Scar endometriosis: not a rarity now a day. *Int J Reprod Contracept Obstet Gynecol* 2018;7:1641-4.