International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Sunanda N et al. Int J Reprod Contracept Obstet Gynecol. 2025 Jun;14(6):1983-1985
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20251596

Case Report

The hidden pain of surgical scars: exploring scar endometriosis

Sunanda N., Poornima D.*

Department of Obstetrics and Gynecology, Mysore Medical College and Research Institute, Mysore, Karnataka, India

Received: 04 February 2025
Revised: 28 April 2025
Accepted: 29 April 2025

***Correspondence:**
Dr. Poornima D.,
E-mail: poornimad1998@gmail.com

ABSTRACT

Scar endometriosis is a rare disease and is difficult to diagnose. The symptoms are nonspecific, typically involving pain at the incision site at the time of menstruation. It commonly follows obstetrical and gynaecological surgeries. The diagnosis is frequently made only after excision of the diseases tissue. The case reports of the patients with a troublesome scar after a caesarean section are presented. Surgical excision led to the diagnosis of scar endometriosis. The Pathogenesis, diagnosis and treatment of this somewhat rare condition are discussed.

Keywords: Scar endometriosis, Menstruation, Histology

INTRODUCTION

Endometriosis is defined as the presence of endometrial stroma and glands outside the uterine endometrial area[1]. It is an infrequent type of extra-pelvic endometriosis that is rather close together with obstetric and gynecological surgeries. It generally occurs in the pelvic sites such as the ovaries, POD, uterine ligaments, pelvic peritoneum, bowel and rectovaginal septum. Extra pelvic endometriosis is frequently seen in abdominal wall and some unusual places like nervous system, thorax, urinary tract, GI tract and in cutaneous tissues.

CASE REPORTS

Case 1

A case of 32-year-old P1L1 non-tubectomised with previous 1 LSCS presented on 01/05/2024 with the complains of cyclical pain at the scar site since 6 months. She previously had 1 LSCS 6 and a half years ago. Examination revealed an approximately 5×6 cm tender, immobile mass at the left lateral end of previous cesarean scar. On ultrasound-an ill-defined heterogenous hypoechoic area measuring 4.4×3.2 cm notes in the intramuscular plane at the site of previous incision in the lateral aspect of left side with internal vascularity. In FNAC the features were suggestive of scar endometriosis. Under SAB the surgical exploration revealed a mass of 4×5 cm at subcutaneous plane involving the rectus sheath and muscle, wide excision of the mass was done and sent for HPE. Histopathology study of the excised mass confirmed the case of scar endometriosis.

Case 2

A 34-year-old P3L1 with previous 3 LSCS tubectomised came with the complains of swelling on the previous scar site and cyclical pain since 4 years. She had 3 previous LSCS and last LSCS was 9 years ago. On examination hard mass of 5×5 cm below and right side of the umbilicus just above the previous scar with restricted mobility was noted. On USG a well-defined heterogenous hypoechoic lesion measuring 6.3×3.1×4 cm noted in inter-muscular plane of rectus sheath with internal vascularity and specks of calcification within. The FNAC of the mass revealed the features of scar endometriosis. Under CSE surgical exploration done and excised a mass of 10×6 cm involving subcutaneous tissue, rectus sheath and right rectus muscle underlying it followed by abdominoplasty done with mesh repair.

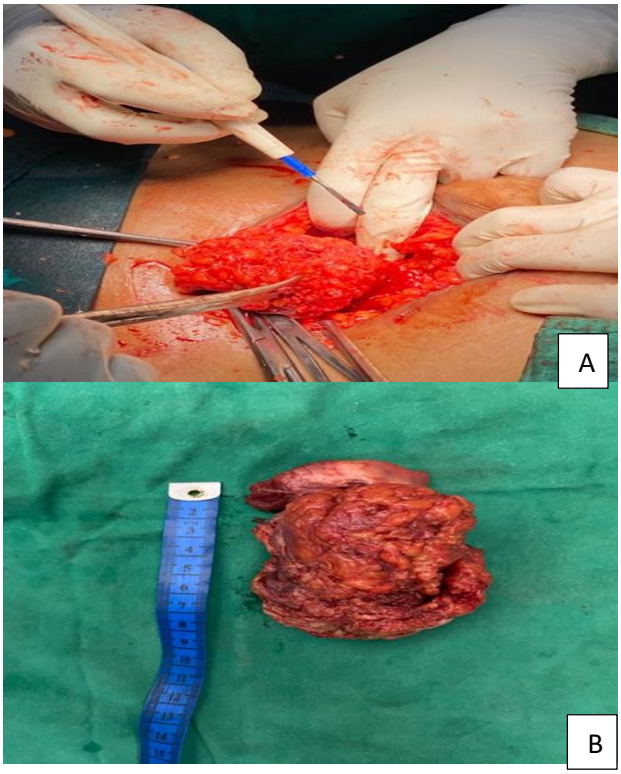

Figure 1 (A and B): Gross photography of endometriosis mass.

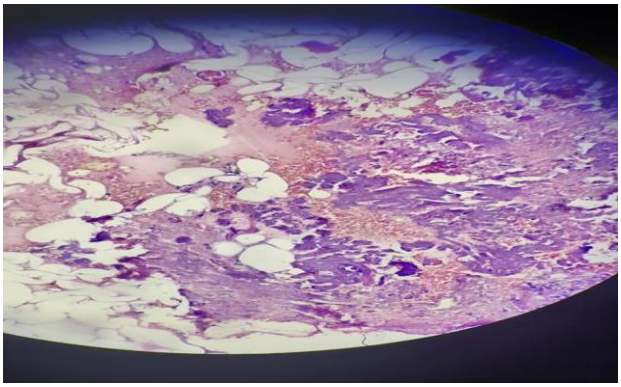

Figure 2: Endometriotic glands and stroma in the subcutaneous tissue.

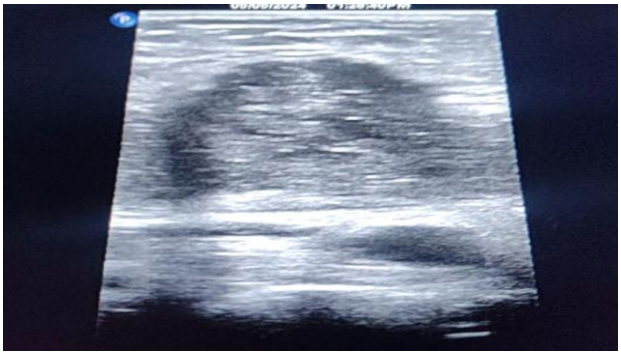

Figure 3: USG in transverse plane of echogenic subcutaneous mass.

DISCUSSION

Scar endometriosis usually follows previous abdominal surgery, especially early hysterotomy and cesarean section. The reported incidence of scar endometriosis after cesarean sections ranges from 0.03 to 0.45%. Frequency of scar endometriosis increases by increased number of cesarean section and laparoscopy performed in recent years. The most common site of extra-pelvic endometriosis is Pfannensteil scar which represents 66% of all the 83 cases reported in the retrospective study carried out from January 2010 to December 2020 at Vita-Nacoes hospitals, Curitaba Brazil.[2,3]

Abdominal wall endometriosis is one of the most frequent extra pelvic locations, mostly occurs due to previous surgical scars from obstetric and gynecological procedures such as cesarean sections, hysterectomy, episiotomy and tubal ligations.[4,5] Out of the various theories concerning the scar endometriosis the most accepted one is the direct implantation of the endometrial tissue in scar during the operation.[6] Under proper hormonal stimulus these cells may proliferate, or the neighboring tissue may undergo metaplasia, which leads to scar endometriosis. By lymphatic or vascular pathways, the endometrial tissue may reach the surgical scar and then generate to scar endometriosis.

Clinical diagnosis of scar endometriosis can be made by a careful history and physical examination. The patients present with a mass near the previous surgical scars, accompanied by increasing colicky pain during menstruation. Usually, there is a history of a gynecological abdominal operation. In these patients, correct diagnosis relies on careful examination, right questioning and obviously taking endometriosis in consideration. The worth of various methods of investigations such as ultrasonographic examinations, computed tomography, magnetic resonance imaging, Doppler sonography or fine-needle biopsy in the diagnosis os scar endometriosis is not clear. Imaging procedures help rather than confirm in obtaining a differential diagnosis. Ultrasonography is the best and most commonly used investigational procedure for abdominal masses, given its practicality and lower cost. The masses may appear hypoechoic and heterogenous mass with messy internal echoes.

Histology is the hallmark of diagnosis. It is satisfied if endometrial glands, stroma and hemosiderin pigment are seen. Generally, diagnosis is easy with a microscopic examination of a standard hematoxylin and eosin-stained slide. Furthermore, the cytologist experience must be the important point to clarify diagnosis and to exclude malignancy.

There are two methods to treat cesarean scar endometriosis. For the nonsurgical, we could use GNRH analogs, progesterone, OCPs and Danazol have been tried which help alleviate clinical symptoms, but this method did not reduce the size and recurrence after the cessation

of medication is constant. The drugs offer only a temporary alleviation of symptoms that are often followed by recurrence after cessation of drug intake. Instead used as an adjuvant hormonal therapy after surgical excision, it decreases the recurrence rate from 42.9% to 11%.

Wide local excision with at-least 1 cm margin is accurate treatment of choice for scar endometriosis and also for recurrent lesions. Recurrence of scar endometriosis seldom happens with only a few cases reported. As expected, the larger and deeper lesions to the muscle, fascia are more difficult to excise completely. In large lesions, complete excision of the lesion may entail a synthetic mesh placement or tissue transfer for closure after resection.

CONCLUSION

Proper history taking and physical examination are the key for diagnosis. The most common findings are cyclic pain, swelling and rarely bleeding from the lesion. Menstruation related pain and swelling in the history should be considered as pathognomonic for scar endometriosis. Ultrasound scan is complementary to the diagnosis in some cases. The definite treatment is surgical. The diagnosis is confirmed by histopathological examination of the tissue.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Bektas H, Bilsel Y, Sarı YS, Feyzullah E, Oğuz K, Mehdi D, et al. Abdominal wall endometrioma; a 10-year experience and brief review of the literature. J Surg Res. 2010;164(1):e77-81.
2. Douglas C, Rotimi O. Extragenital endometriosis-a clinicopathological review of a Glasgow hospital experience with case illustrations. J Obstet Gynaecol. 2004;24(7):804-8.
3. Chiara B, Daniel C, De Sousa Costa D, Cruz AC, Zomer MT, Cosma S, et al. Abdominal wall endometriosis: Report of 83 cases. Int J Gynaecol Obstet. 2022;159(2):530-6.
4. Bhowmick RN, Paul P, Dutra S, Roy B. Endometriosis of laparotomy scar (a review of 13 cases). J Obstet Gynecol. 1986;36(1):130-1.
5. Chatterjee SK. Scar endometriosis: a clinicopathologic study of 17 cases. Obstet Gynecol. 1980;56(1):81-4.
6. Steck WD, Helwig EB. Cutaneous endometriosis. Clin Obstetr Gynecol. 1966;9(2):373-83.

Cite this article as: Sunanda N, Poornima D. The hidden pain of surgical scars: exploring scar endometriosis. Int J Reprod Contracept Obstet Gynecol 2025;14:1983-5.