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Cesarean Scar Endometriosis Causes Abdominal Pain, Reporting a Case and Literature Review

Baher Obeidat[1], Ghassan Obaid[2], Rahaf Badr[3], Jannat Abdullah[3], Abdulrahman Alotaibi[3,4*]

[1]Department of Surgery, Samir Abbas Hospital, Jeddah, Saudi Arabia

[2]Department of Surgery, King Abdullah Medical City, Makkah, Saudi Arabia

[3]Department of Surgery, Soliman Fakeeh Hospital, Jeddah, Saudi Arabia

[4]Department of Surgery, Faculty of Medicine, University of Jeddah, Jeddah, Saudi Arabia

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***Corresponding author:** Abdulrahman Muaod Alotaibi, Department of Surgery, Faculty of Medicine, University of Jeddah, Jeddah, Saudi Arabia

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ABSTRACT

Endometriosis may develop outside the pelvis. Of the several kinds of endometriosis that may affect the abdominal wall, Cesarean Scar Endometriosis (CSE) is a prevalent one. We present the case of a 41-year-old female who had suffered nonspecific lower abdomen discomfort for 3 years and swelling for 2 months. The swelling is approximately 1 cm x 2 cm, tender, immobile in subcutaneous under the Pfannenstielscar in the right lower quadrant. The patient underwent a Caesarean Section (CS) three years ago without any complications. Impression was stitch granuloma versus sebaceous cyst. Surgical excision of the lesion was done, and the histopathological finding confirmed endometriosis. In conclusion, Abdominal discomfort may be the first sign of CSE, which may manifest as a stitch sinus or skin lesion. The presence of pain mandate biopsy. All Excise dlesions nearby a scar must be sent to histopathology since it can lead to a diagnosis of hidden abdominal endometriosis.

Keywords: Case report; Cesarean Scar Endometriosis (CSE); Endometriosis; Gynecology; Abdominal pain

INTRODUCTION

Endometriosis is a condition in which tissue that looks like the uterine lining develops in places outside the uterus.[1] Although endometriosis most often manifests in the pelvic region, it may show up elsewhere in the body.

Cesarean scar endometriosis affects women of childbearing age all over the globe, and its prevalence is estimated to be between 0.03% and 0.45%.[2,3]

Benedetto et al. found that the average age of 83 patients with CSE was 39.5 years at the time of diagnosis.[4]

The origins, path physiology, and pathological process of endometriosis have been explained by more than a dozen different hypotheses, but no one hypothesis can account for the whole spectrum of the disease's presentations.

Most women have dysmenorrhea, dyspareunia, persistent pelvic discomfort, infertility, and rectal bleeding at some point in their lives.[3] The location, size, and complexity of the illness are all factors that contribute to the severity of the symptoms. Endometriosis has such a wide range of symptoms that it is often misdiagnosed and left untreated for too long.[1] By collecting data on this unusual condition, doctors will be better prepared to evaluate CSE as a possible diagnosis for a woman who presents with a history of CS and abdominal discomfort or a skin lesion. Herein, we present a case of CSE in a 41-year-old female and conduct a literature review of recently reported cases.

CASE PRESENTATION

For two months, a 41-year-old lady had been experiencing lower abdominal pain and swelling, which prompted her to seek medical attention. The swelling steadily increases in size and became painful at the edge of the Pfannenstielscar scar. Three years ago, she underwent a Caesarean section without any difficulties. The patient medical history is unremarkable apart from hypertension, hypothyroidism, family history of breast cancer, and previous sleeve gastrectomy for morbid obesity. She is having regular menstrual periods and using oral contraceptive pills for four years.

Examination finding was a small, tender, immobile mass under the right corner of the Pfannenstiel incision. An imaging study by ultrasound showed 2 cm subcutaneous hypoechoic lesion. The magnetic resonance image (MRI) was ordered to rule out the possibility of a subcutaneous tumor, and it showed a multiloculated cystic lesion that was most likely an infected sebaceous cyst rather than a granuloma. The MRI did not reveal any abnormalities inside the abdominal cavity. The lesion excision done with clear margin and histopathology confirmed SCE (Figures 1-4).

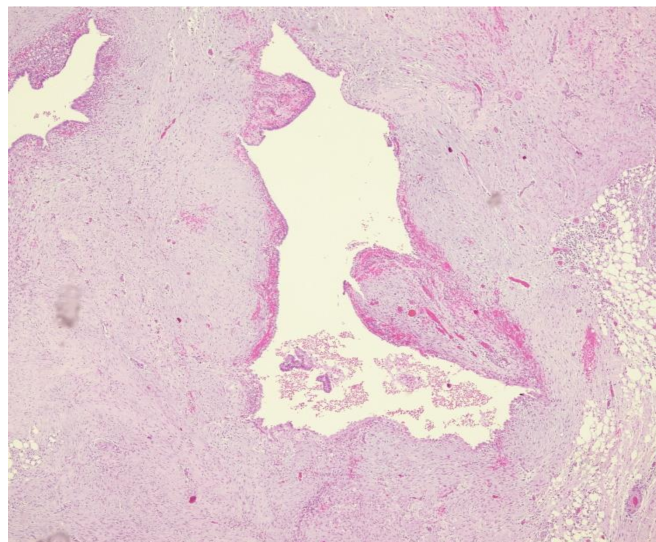
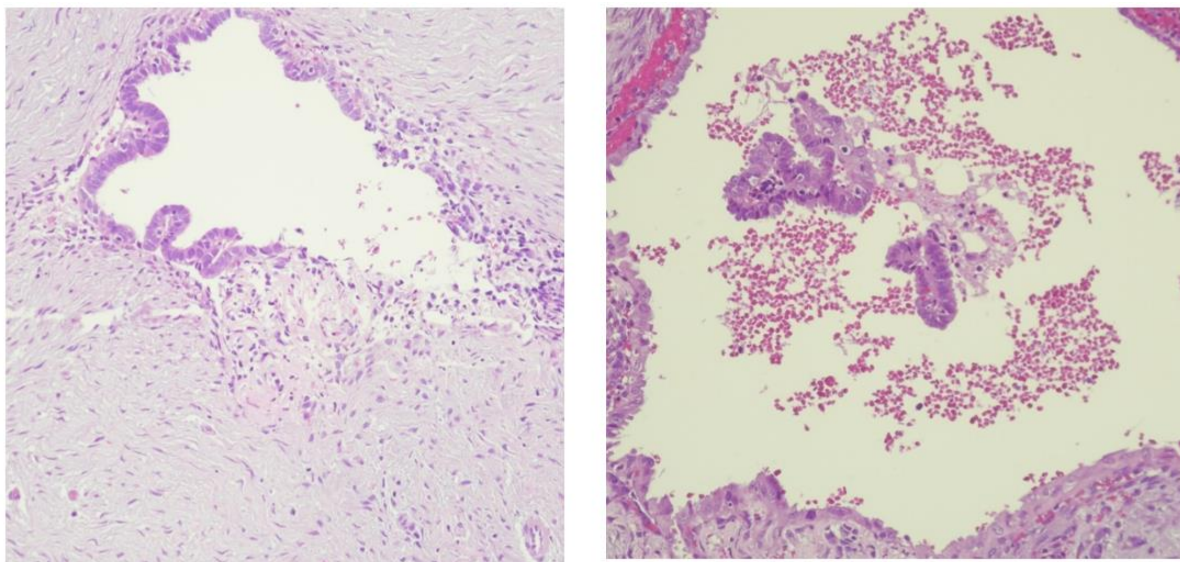


Figure 1: Scattered endometrial glands within fibrofatty tissue. (Original magnification x200).



Figures 2 and 3: Endometrial glands lined by columnar proliferating cells surrounded by fibrotic tissue showing mild inflammatory infiltrate. (Original magnification x200).

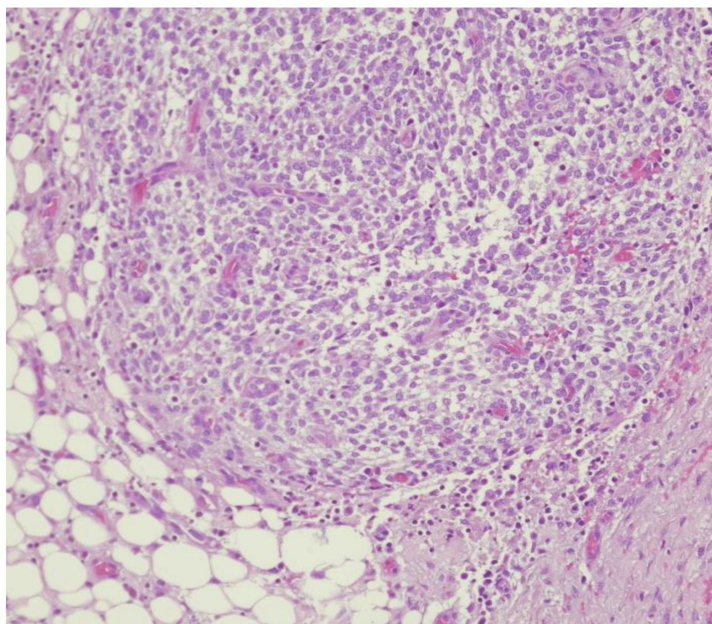


Figure 4: Dense endometrial stroma seen within the fatty subcutaneous tissue (original magnification x200).

DISCUSSION

We were able to identify a patient with scar endometriosis. Recently, in 2022, there were two cases diagnosed of this condition.[5,6] Mechanical iatrogenic implantation of endometrial cells into abdominal fascia and/or subcutaneous

tissue during surgical intervention is thought to be the cause of CSE, which, when stimulated by estrogen, becomes active and expands, contributing to the disease's complex pathogenesis and making endometriosis a common complication of gynecological surgery.[7]

Typical CSE symptoms include abdominal pain and swelling. Similar to our case, the most common symptom reported by 198 patients (mean age 32) was abdominal mass, followed by cyclic pain (98%) and (87%), respectively.[8] Some noticed steady growth in the size of nodules as the primary manifestation, which accounts for 90% of all cases.[9]

Among the 46 patients reviewed for CSE, 91.3 percent (42/46) experiencing a nodular abdominal mass around their cesarean scar, whereas the remaining patients report having abdominal pain.[9] It is not known what predisposes women to have early uterine tissue implanted into their CS scars. It's possible that the incision shape is to blame. In one review, Pfannenstiel incision is related with early CSE compared to vertical incision (24.0 vs. 33.0 months, P = 0.006), suggesting that incision form has a role in SCE.[8]

Excision-managed patients who required mesh (7/46) were still disease-free 30 months later.[9] When a CSE has been excised with a negative margin, recurrence is uncommon. Excision by electrocoagulation was associated with a 1.4% (1/71) recurrence rate in a 12-month follow-up study.[10] Others reported a relapse rate up to 5% (2/42).[11]

In cases of excision including a significant fascial defect, the use of a mesh to facilitate tension-free closure is an acceptable option. In one study, three out of seventy-one patients (4.2%) with large abdominal wall gaps had polypropylene mesh used to repair the defects.[10] A whole year later, one of them was pregnant. Implications of these findings surgical excision is the sole treatment option for CSE sufferers. Women who are trying to conceive may also be given mesh repair of a substantial post-excisional defect. Surgical In contrast to the high failure rate of medical therapy, excision of the lesion with a negative margin is the optimal therapeutic strategy. Although most instances of endometriosis are uncomplicated, roughly 0.5% to 1% of them have malignancy that necessitates diagnosing and removing CSE.[12]

Table1: Recent CSE cases published in the literature in last 5 years.

Author	Country	Year of publication	NO of cases
Sedhain N, et al [13]	Nepal	2018	2
Alnafisah F, et al [14]	Saudi Arabia	2018	1
Wasserman P, et al [15]	USA	2018	1
D'Agostino C, et al [16]	Italy	2019	1
Ramdani A, et al [17]	Morocco	2020	2
Gaba N, et al [18]	India	2020	1
Purbadi S, et al [2]	Indonesia	2021	1
Bartłomiej B, et al [19]	Poland	2021	1
Kováč I, et al [20]	Slovakia	2021	1
Xu R, et al [21]	Chin	2022	1
Masereka R, et al [5]	Uganda	2022	1
Takaya K, et al [22]	Japan	2022	1
Poudel D, et al [23]	Nepal	2022	1

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CONCLUSION

Gradual nodular enlargement at the corner of the cesarean scar is probably related to endometriosis implantation. Surgical resection with a negative margin is mandated since the malignant transformation is reported in some cases. Surgeon awareness can help in early detection and management.

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