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Post Hysterectomy Scar Endometriosis: A Case Report

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Abstract

Introduction: Endometriosis is a common gynaecological condition occurring in 8% - 15% of reproductive age group women. It is defined as the ectopic implantation of functioning endometrium outside the uterus, the commonest site being the pelvis. Scar endometriosis is rare and difficult to diagnose as it can be confused with other surgical conditions. It occurs in 0.1% of women with an abdominal scar. **Aim:** The aim of this paper is to report a case of scar endometriosis, its diagnosis and its management. **Case Report:** A 43-year-old female patient with scar endometriosis post hysterectomy surgery; diagnosed by MRI and managed by surgical excision. **Conclusion:** Scar endometriosis is a challenging diagnosis that usually takes time; mainly because it is commonly confused with other conditions due to its vague presenting symptoms. It has to be kept in mind in patients post pelvic surgery. The gold standard for the diagnosis of scar endometriosis is Histopathology. MRI aids in the pre-surgical diagnosis.

Subject Areas

Gynecology & Obstetrics

Keywords

Scar Endometriosis, Diagnosis, MRI, Case Report

1. Introduction

Endometriosis is defined as the presence of endometrial-type mucosa outside the uterine cavity and it generally involves pelvic organs [1]. It occurs in 8% - 15% of women with reproductive age group. Even though it is relatively common, its diagnosis is usually a challenge due to its variable presentations. The exact etiology behind endometriosis is still unknown, but could be explained by theories

like: tubal regurgitation, coelomic metaplasia or vascular spread [2]. Pelvis is the most common site [3]. Extrapelvic endometriosis is rare; seen in the lungs, bowel, ureter, brain and infrequently in the abdominal wall. Endometriotic tissue can be spread hematogenously, lymphatically or by iatrogenic routes. Hence the variety of unusual sites [2]. In a rare clinical event, it implants near or inside an abdominal surgical incision in patients with obstetrical and gynecological surgeries [4]. This is possibly due to direct ectopic implantation of the ectopic tissue during the procedure or by hematogenous or lymphatic spread. The proliferation of the ectopic endometrial tissue is stimulated by cycling estrogens [5].

Scar endometriosis is rare and often difficult to diagnose. It is often asymptomatic [6]. The symptoms are vague, typically involving pain in the abdomen during menstruation. A painful nodule can be palpated on examination, if the scar involved is located on the abdominal wall. However, clinical physical examination is normal, when the lesion is located on the uterine scar. The lesion is often confused with abscess, hematoma, suture granuloma, desmoid tumor, sarcoma or metastatic malignancy [3]; and diagnosis is frequently made only after excision [7]. Pathognomonic symptoms of scar endometriosis include cyclic pain associated with drainage or bleeding from the surgical site, during menstruation. Furthermore, those symptoms are not often seen [8].

Imaging modalities are not necessary when the symptoms are classic. When further studies are needed, MRI is the most useful [3].

The mainstay of management is a wide margin of surgical excision. Recurrence rate is said to be 4.3% and malignant degeneration is between 0.3% - 1% [9] [10].

The purpose of this work is to facilitate the identification and support the diagnosis of scar endometriosis, and to highlight the need to identify and comprehensively assess potential cases of scar endometriosis.

2. Case Report

We report a case of a 43-year-old Bahraini female who was seen in consultation for suprapubic pain. The patient is a known case of Type 2 Diabetes Mellitus and G6PD. Her surgical history included an uncomplicated cesarean section in 2006 and hysterectomy in 2013. She complained of suprapubic pain that was constant and severe, relieved by analgesics and aggravated by menstruation and urination. The pain was described as stabbing and burning; not associated with any other symptoms. Her physical examination revealed a well healed Pfannenstiel incisional scar, with moderate tenderness around the pubis.

An MRI showed a multiloculated cystic lesion 3 × 2.6 × 3.5 cm in the lower anterior abdominal wall in relation to the left rectus abdominis muscle (**Figure 1**). A diagnosis of scar endometriosis was made. The patient underwent Laparotomy, Bilateral salpingo oophorectomy with excision of scar endometriosis under general anesthesia.

Intraoperatively an endometriotic lesion 4 × 5 cm in the subcutaneous tissue

on the left side of the previous scar was incised. Chocolate material leaked from the lesion.

The scar endometriosis was completely excised, and the specimen was sent to the pathology department (Figure 2). The histopathology report confirmed the diagnosis of endometriosis (Figure 3). The patient's postoperative course was

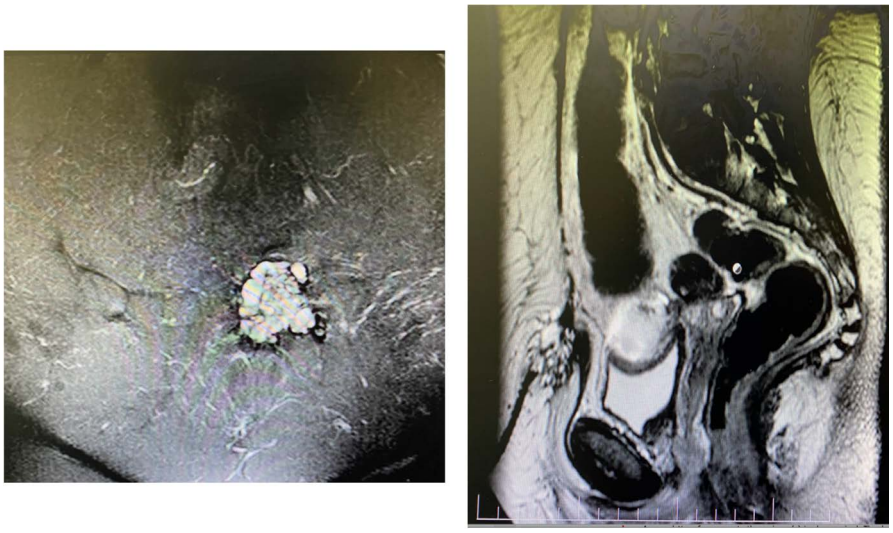

Figure 1. MRI images showing anterior abdominal wall cystic lesion.

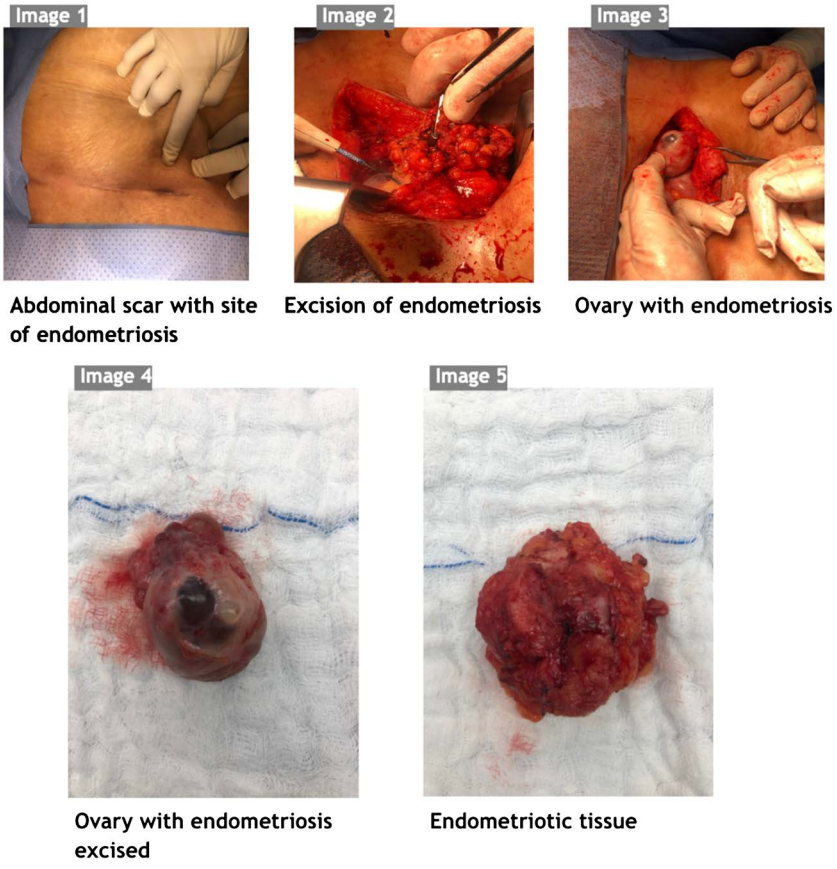

Figure 2. Excision of scar endometriosis.

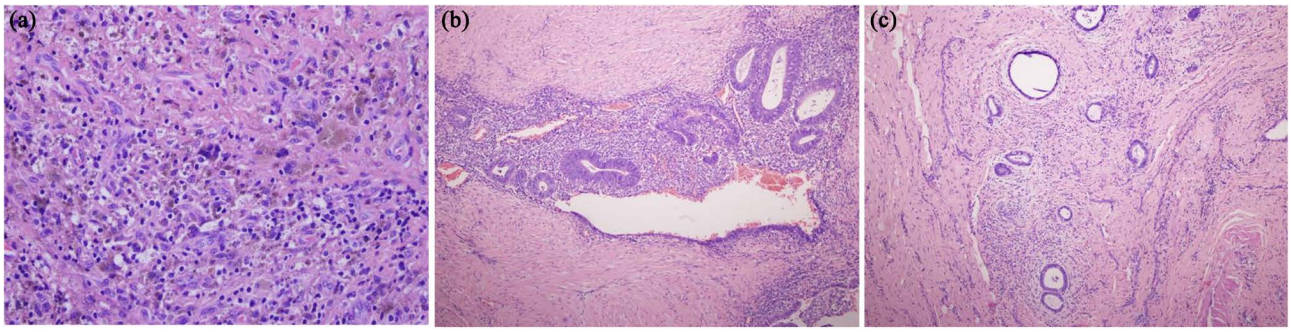

Figure 3. Histological analysis. (a) Hemosiderin; (b) Stroma and glands; (c) Glands.

uneventful, and her pain subsided. The patient was seen on follow up after 6 weeks and she had no complaints.

3. Discussion

Scar endometriosis is the implantation of endometrial tissue at incision site occurring after gynaecological or obstetrical surgeries with an incidence of less than 2% [3]. The commonest subtype is at Caesarean section [3]. The time interval between surgery and the onset of symptoms can range from less than 1 year to over 20 years [4].

It has been suggested that Endometrium from an early pregnancy has more likelihood of ectopic implantation than endometrium from a full term pregnancy. Hence, early hysterectomy in pregnancy has a higher risk of scar endometriosis than the cesarean section done at full term. This can be prevented by deep cleaning of the abdominal wound intraoperatively [11].

The classical presentation of scar endometriosis is often a tender mass within or adjacent to a surgical scar. Pain is usually associated with menstrual cycle. The nonspecific symptoms can accompany a wide variety of disorders and it is often confused with other gynaecological conditions.

In addition to clinical signs, radiological imaging such US, CT scan and MRI can aid the diagnosis and exclusion. Radiological features of endometriosis are quite variable and sometimes mimic other lesions. While literature indicates there is no gold standard in initial assessment of suspected scar endometriosis radiologically, the advantages of each should be understood [7].

Histology is the hallmark of diagnosis, and the diagnosis is often made only after excision of the lesion [7]. The treatment of choice is a total wide excision of the lesion, which is diagnostic and therapeutic at the same time. Medical treatment strategies focus on hormonal manipulation of the menstrual cycle and have variable success and may produce only temporary relief of symptoms [12].

We have used MRI to aid with the pre-surgical diagnosis instead of Ultrasound as it is a better modality. It should be kept in mind that MRI imaging is not readily available considering its cost. Our patient has undergone laparotomy with wide excision of endometriosis under general anesthesia. The specimen was sent for histopathology which led to the definitive diagnosis. A similar case was

reported in Sapienza medical school, Rome, Italy in the year 2016. A 39-year-old female with a history of previous 3 Lower segment cesarean sections presented with cyclical pain in the pfannenstiel incision associated with a palpable mass on the left corner of the incision. A pre-surgical diagnosis of an abscessed granuloma was made by ultrasound; a hypoechoic mass was seen in the subcutaneous tissue with fluid component. The patient underwent incision under local anesthesia; intraoperatively a solid mass was identified in the facia, excised and sent for histopathology. Histopathology report confirmed endometriosis [13].

4. Conclusion

Scar endometriosis is a rare condition, seen in patients post gynecological surgeries. Its diagnosis is challenging and is often confused with other conditions. Confirmative diagnosis can only be made by histopathology. Malignant change of scar endometriosis is rare, however it must be suspected if the condition was recurrent and long standing [12] [14].

Acknowledgements

Consent has been obtained from the patient.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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