Asian Journal of Case Reports in Surgery

5(3): 20-25, 2020; Article no.AJCRS.61491

Scar Endometriosis – An Unusual Case: From a Surgeon's Perspective

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

Article Information

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Complete Peer review History: http://www.sdiarticle4.com/review-history/61491

Case Study

Received 24 July 2020
Accepted 30 September 2020
Published 19 October 2020

ABSTRACT

Endometriosis is described as the presence of functioning endometrial tissue outside the uterine cavity. Scar endometriosis is a rare disease, and is difficult to diagnose. The symptoms are nonspecific, typically involving abdominal wall pain at the incision site at the time of menstruation. It commonly follows obstetrical and gynecological surgeries with maximum incidence seen following caesarean section. It can also present as abdominal lump. General surgeons are frequently involved in the management of these lesions. A report of an unusual case of scar endometriosis following caesarean section is presented here.

Keywords: Endometriosis; incisional endometriosis; painful scar; scar endometriosis.

1. INTRODUCTION

Endometriosis is defined as the presence or growth of ectopic endometrial tissue [1]. Affecting an estimated 89 million women of reproductive age worldwide, endometriosis occurs in 5% to 10% of all women, often resulting in debilitating pain and infertility. Although most frequently found in the pelvis, reports citing extra pelvic endometrial locations range from the lungs to the extremities [2]. Incisional or scar endometriosis has also been described, however, with a much

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rarer incidence (less than 1% of affected patients) [1,3]. The most common site is at a caesarean section scar. But there are case reports of involvement of the rectus abdominis muscle in a virgin abdomen [4]. Endometriosis, in patients with scars, is more common in the abdominal skin and subcutaneous tissue compared to muscle and fascia. The simultaneous occurrence of pelvic endometriosis with scar endometriosis has been found to be infrequent. Scar endometriosis is rare and difficult to diagnose, often confused with other surgical conditions. The present study describes an unusual case of scar endometriosis, and tries to elucidate physical signs and symptoms that may lead to earlier diagnosis and prompt treatment.

2. CASE PRESENTATION

A 32year old lady presented with a painful abdominal lump for last two years. She was an otherwise healthy woman with no significant medical history. Her surgical history included an uncomplicated caesarian section three years previously. About a year after the caesarean section she noticed a small swelling above the scar which was painful. However the swelling gradually increased in size. Though the swelling was painful throughout but sometimes the intensity of pain increased during menstruation. On examination, the patient was of average built & nutrition. She had a pfannenstiel incision for caesarean section done previously but the interesting point was the tender nodule palpated not on the scar but above the scar about midway between symphysis pubis & umbilicus. It was about 3cm round shaped nodule, firm & extremely tender. The swelling was on midline. It was likely to be parietal swelling because no change with leg raise test. The overlying skin was free & there was no sign of local inflammation.

Swelling was non mobile. The caesarean section scar was painless. Patient was sent for ultrasonography with the suspicion of scar endometriosis.

2.1 Ultrasonography Report

"A lobulated, hypoechoic & superficially placed mass lesion [32mm-31mm-24mm] that is hypovascular and highly tender seen along the midline in hypogastric region within the parietal tissues – possibly scar endometriotic nodule. No other intraabdominal pathology detected". Other routine workup was normal.

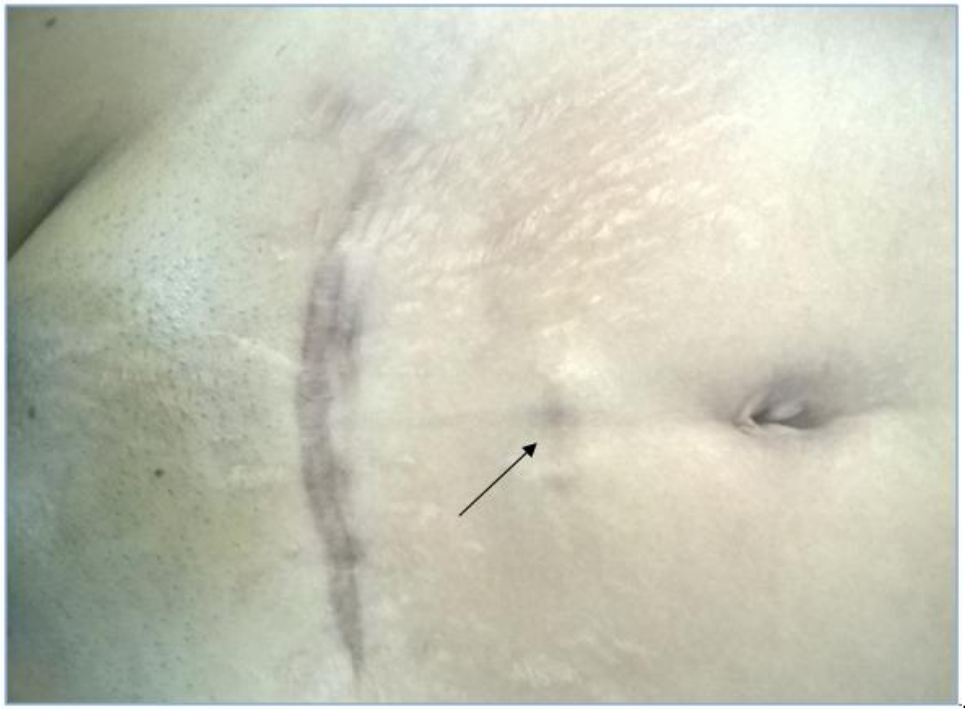

Fig. 1. Endometriotic nodule seen on the midline between umbilicus and the scar [Black arrow]

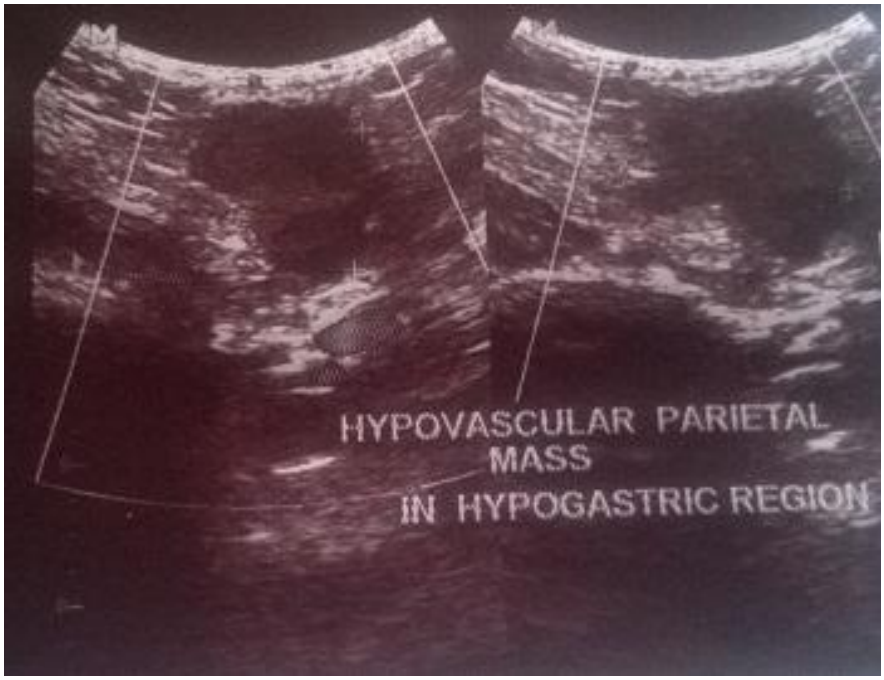

Fig. 2. Ultrasonography shows the lesion

A decision taken to excise the lesion and the patient posted for operation. Operation done under spinal anesthesia. The nodule was densely adhered with subcutaneous tissue and it also infiltrated rectus sheath. Wide excision done. The uterus, ovaries, tubes & broad ligament were normal. No other similar nodule found. Primary repair done with No. 0 polypropylene suture. The excised tissue sent for histopathology examination. Histopathology report confirmed the excised mass to be of endometriotic origin. Post-operative recovery was uneventful. Patient advised three cycles of low dose oral contraceptive post operatively. There was no recurrence after one year of follow-up.

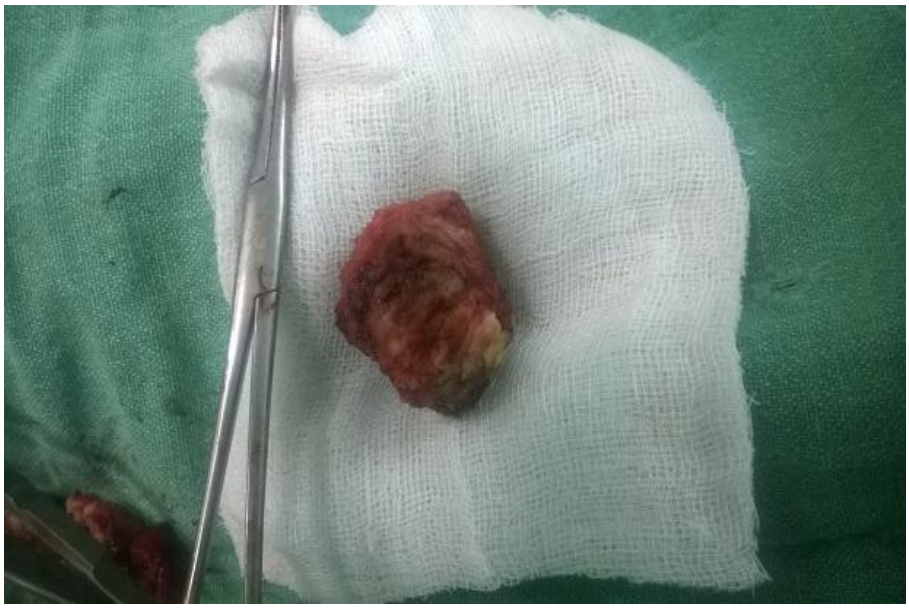

Fig. 3. Completely excised lesion

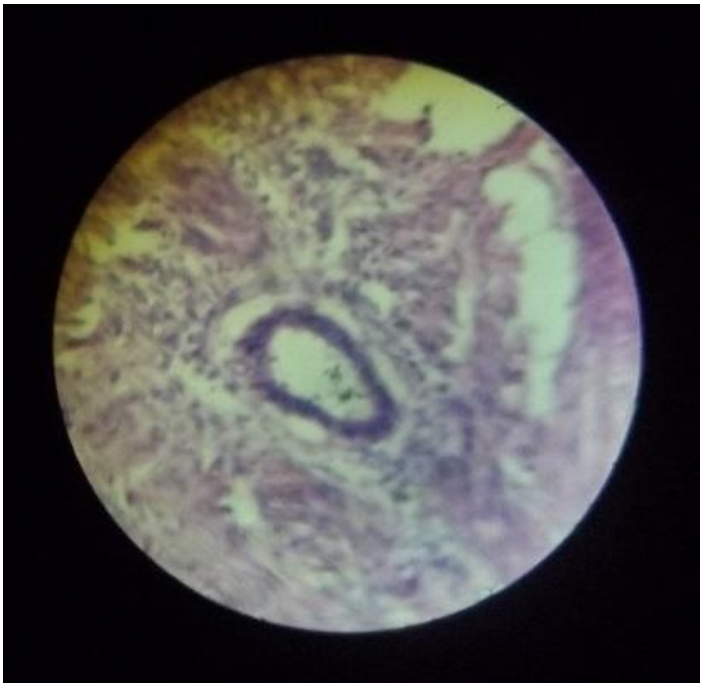

Fig. 4. Section shows endometrial gland with fibrocollagenous stroma [Haematoxylin & Eosin, 100x]

2.2 Histopathology Report

Section shows histology of fibrocollagenous tissue with endometrial glands.

3. DISCUSSION

Endometriosis is the presence of functioning endometrial tissue outside the uterine cavity, whereas endometrioma is a well-circumscribed mass. Endometriosis involving the abdominal wall is an unusual phenomenon which should be considered in the differential diagnosis of abdominal wall masses in women. The usual clinical presentation is a painful nodule in a parous woman with a history of gynecological or obstetrical surgery. The intensity of pain and size of nodule vary with menstrual cycle. Histologically, endometriosis is characterized by the ectopic presence of endometrial-like glands, spindled endometrial stroma and hemosiderin deposition either within the macrophages or in the stroma. Many theories as to the cause of scar endometriosis have been postulated; however, the most generally accepted theory is the iatrogenic transplantation of endometrial implants to the wound edge during an abdominal or pelvic surgery [1,3,5,6]. In clinical practice, its occurrence has been well documented in incisions of any type where there has been possible contact with endometrial tissue, including episiotomy, hysterotomy, ectopic pregnancy, laparoscopy, tubal ligation, and cesarean section [7]. Time interval between operation and presentation has varied from 3 months to 10 years in different series [8]. In a study by Celik and colleagues, a case was reported with a two year time interval [9]. The diagnosis of scar endometriosis may be challenging. It is often misdiagnosed as stitch granuloma, inguinal hernia, lipoma, abscess, cyst, incisional hernia, desmoid tumor, sarcoma, lymphoma, or primary and metastatic cancer. Cyclical changes in the intensity of pain and size of the endometrial implants during menstruation are usually characteristic of classical endometriosis. However, in the largest reported series [10] to date, only 20% of the patients exhibited these symptoms. Appropriate imaging techniques (ultrasound, CT or MRI) usually lead to the correct diagnosis. Management includes both surgical excision and hormonal suppression [2,11] Oral contraceptives, progestational and androgenic agents have been tried. It is believed that hormonal suppression is only partially effective and surgical excision of the scar is the definitive treatment [11,12] Recently, there have been reports of the use of the gonadotropin agonist (Leuprolide acetate), but it has been found to provide only prompt improvement in

symptoms with no change in the lesion size [13]. In this case a three months course of low dose oral contraceptive was given to the patient after wide surgical excision. No recurrence seen after one year of follow up. Malignant change of endometriosis in a cesarean scar is rare [14]. Follow up of endometriosis patients is important because of the chances of recurrence, which may require re-excision. In cases of continual recurrence, possibility of malignancy should be ruled out. Hence, good technique and proper care during cesarean section may help in preventing scar endometriosis.

4. CONCLUSION

Though endometriosis falls in the domain of gynecologist, but sometimes patient with scar endometriosis can present with painful abdominal lump to a general surgeon. The classical history of cyclical pain is not present always therefore high index of suspicion is needed. It is very easy to misdiagnose these cases as inflammatory swelling as the main symptom is pain. Surgery in the form of wide local excision is the mainstay of management, therefore early diagnosis can spare these patients of considerable morbidity.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Author has declared that no competing interests exist.

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DOI:10.1016/s0368-2315(06)76394-3
PMID: 16575366

Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sdiarticle4.com/review-history/61491