

A Case of Endometriosis Present Over Caesarean Section Scar

Dr. Niha Sunan¹, Dr. V. Ramadevi², Dr. H. S. Hajira³

¹Postgraduate, Department of Obstetrics and Gynaecology, Fathima Institute of Medical Sciences, Kadapa, Andhra Pradesh, India

²Professor and HOD, Department of Obstetrics and Gynaecology, Fathima Institute of Medical Sciences, Kadapa, Andhra Pradesh, India

³Associate Professor, Department of Obstetrics and Gynaecology, Fathima Institute of Medical Sciences, Kadapa, Andhra Pradesh, India

¹Corresponding Author Email: [niha.sunan2017\[at\]gmail.com](mailto:niha.sunan2017[at]gmail.com)

Abstract: *Caesarean section is the most common surgery linked to the development of abdominal wall endometriosis. We report a rare case of caesarean scar endometriosis in a 30-year-old female after four years of lower segment caesarean section. The patient had a classic history of cyclical pain, swelling and bleeding. The symptoms were not relieved by non-steroidal anti-inflammatory drugs and antibiotic. The diagnosis of scar endometriosis was made on the basis of clinical history and ultrasonography findings. The lesion was surgically excised under spinal anesthesia and histopathological analysis was done for final diagnosis. There were no symptoms during the post-surgical follow-up.*

Keywords: Ultrasonography; Scar; Caesarean section

1. Introduction

Endometriosis is a benign disease characterized by presence of normal endometrial tissue outside the uterus. It normally involves the pelvic organs such as ovaries, fallopian tubes, rectum and bladder. Occasionally, the ectopic endometrial lesions involve the extra pelvic parts of the body which include intra-abdominal organs as well as the abdominal wall. Abdominal wall endometriosis in a caesarean section scar is very rare with a reported incidence of 0.2% to 0.45%. [1]

A rare case of caesarean scar endometriosis in a 30-year-old female after four years of lower segment caesarean section was reported in our hospital.

2. Case Report

The present report is a case of 30-years-old female, P1L1, presented to our hospital with complaints of pain on and off over left side of caesarean scar since eight months. Lower segment caesarean section was carried out four years back. She reported swelling over the scar which changed in colour to brown four months ago. She was treated by the local doctors with non-steroidal anti-inflammatory drugs and antibiotic, however, her symptoms were not relieved. She acknowledged that the lump and pain increased during menstruation and bleed during the period for 3-4 days (Figure1) The history revealed that the lump size regressed and pain subsided after cessation of menstruation.



Figure 1: Gross appearance of the lump seen on the caesareans car

There were no associated bowel complaints and no history of fever. Her menstrual cycles were regular and there was no history suggestive of abnormal uterine bleeding. There was no history suggestive of chronic diseases such as diabetes mellitus, thyroid disorders and heart disease.

Her general condition was fair. On abdominal examination there was a 4 to 5 cm solid swelling seen over the left side of Pfannenstiel scar. It was fixed to anterior abdominal wall. Ultrasonography was done which showed irregular hypochoic mass suggestive of endometriosis. Routine laboratory investigations were within normal limit.

A diagnosis of caesarean scar endometriosis was made on the basis of history and ultrasonography.

Elective surgical excision of the lesion was performed under spinal anesthesia, ensuring surrounding visible clear margins. The lump was sent for histopathological examination which revealed the presence of stratified squamous epithelium with benign endometrial glands and stroma that finally confirmed the diagnosis of endometriosis (Figure 2). The patient's postoperative period was uneventful. There were no symptoms during the post-surgical follow-up at one month.

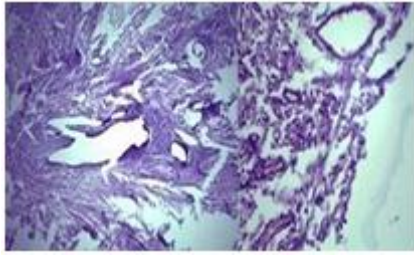


Figure 2: Microscopic view showing presence of stratified squamous epithelium with benign endometrial glands

3. Discussion

Endometriosis is the presence of endometrial-like tissue, consisting of glands and/or stroma, at the ectopic site. These ectopic locations are commonly the pelvic organs and peritoneum. [2] Rarely, ectopic endometriotic lesions can be found in kidney, lungs, brain and abdominal wall. [3] Endometriosis is a benign estrogen dependent gynaecological disorder associated with cyclical or non-cyclical pelvic pain. The etiology and pathogenesis remains unclear. Most accepted theory is Sampson's theory of retrograde menstruation. The prevalence of endometriosis in reproductive women is around 10 % to 20%. [4] Currently, the gold standard to diagnose and stage surface disease is direct visualization of lesions during surgery or by laparoscopy confirmed by pathological evaluation of excised or biopsied lesions. Time to definitive diagnosis can be delayed upto 7 to 11 years for several reasons including an initial trial of empirical medical therapy, misdiagnosis, denial and dismissal of pain as a normal event during menses, as well as high risk and costs associated with surgery.

Endometriosis involving the abdominal wall is commonly seen in clinical practice after gynecological and obstetrical surgeries [5] Spontaneous cases of abdominal wall endometriosis in the absence of previous surgery have been reported in medical literature which strengthens the complex pathophysiological mechanism in the genesis of endometriosis. [6, 7]. Caesarean section is the most common surgery linked to the development of abdominal wall endometriosis. [1] It's exact incidence is difficult to estimate because the data available is based on case reports and small series. Zhang and Liu conducted a cohort study in 151 subjects and reported an incidence of 1.96% [8]. Although many theories have been postulated for the development of caesarean scar endometriosis, the most generally accepted theory is direct implantation of endometrial tissue in the caesarean incision (the implantation theory) [9]. During caesarean section, the endometrial tissue is implanted directly into the caesarean incision. The supply of nutrients and hormonal stimuli make these endometrial cells to proliferate and grow which finally lead to caesarean scar endometriosis.

The present case had a history of lower segment caesarean section four years ago. She noticed pain, swelling and colour change in the scar after three years and four months. These symptoms were cyclical in nature which provoked her to visit a gynaecologist.

However, the symptoms of endometriosis are often non-

cyclic in nature which makes the diagnosis challenging. Ultrasonography is the imaging modality of choice in the evaluation of soft tissue masses. It is comparatively cheap and easily accessible vis-a-vis CT and MRI. Aynur Solak et al in a study presented the sonographic features of abdominal wall endometriosis to be solid, hypoechoic lesions in the abdominal wall and to contain internal vascularity on Colour Doppler examination. We also preferred to do USG for the present case considering the cost to the patient. USG also helps to rule out other differentials such as suture granuloma, lipoma, haematoma, sebaceous cyst, desmoids tumour or primary and meta-static cancer. [10]

We avoided doing biopsy because the diagnosis of scar endometriosis was confirmed on the basis of the history and USG. Moreover, the use of biopsy is debatable, as literature reports an increased risk of producing new endometriotic implants at the puncture site, spread to distant site and damage to viscera [11]

There are two approaches for the treatment of endometriosis a. Medical treatment b. Surgery. Medical treatment include use of nonsteroidal anti-inflammatory drugs and hormonal agents such as progestins, contraceptive pills etc. However, medical therapy is only partially effective in cases of scar endometriosis. Surgical excision is the standard treatment approach for scar endometriosis. The surgeon should be aware that in order to prevent the disease recurrence; excision with at least a 1cm margin boundary should be performed and additional structures, such as fascia or muscle, should be excised.[12] In the present case, we performed the surgical excision of the lesion and sent the tissue for histopathologic analysis to confirm the final diagnosis.

4. Conclusion

Meticulous history taking is important while evaluating a case of surgical scar. Cyclical presentation of pain, swelling and bleeding in a scar should make a clinician to think for the diagnosis of scar endometriosis. USG is the imaging technique of choice for evaluation of soft tissue mass. Biopsy should be avoided because of controversial reports. Surgical excision is the gold standard for the treatment of caesarean scar endometriosis.

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