

Scar Endometriosis - A Rare Disease Occurrence

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ABSTRACT

Endometriosis is a common gynecological condition. It can pose a diagnostic dilemma when presented as endometriosis in the scar. This is a rare disease entity. We discuss a case of abdominal wall endometriosis following caesarian section. It presented as tender nodule

in the left region of previous C-section scar, with cyclical pain and swelling. In view of the possibility of scar endometriosis, the mass was completely excised. Pathologic findings were compatible with scar endometriosis. **Key Words:** Endometriosis, scar, endometrioma.

INTRODUCTION

Endometriosis was first described by Rokitansky in 1860 and was defined as the presence and proliferation of endometrium outside the uterine cavity, commonest site being pelvis. In 1940, 73 cases were reported by Wespi & Kletzhandler¹, 68 of which followed hystrotomy. The suggested frequency of scar endometriosis might come close to 5% among patients having caesarean section or hystrotomy. Similarly operations on endometrial cavity have also been reported to greatly facilitate the endometrium implantation in sites such as vulvo-perineal region, scar of colpo-perineo-rhaphy, episiotomy and bartholin cyst excision. Also, endometriosis has been found along the needle tract after amniocentesis or intra-amniotic saline instillation for second trimester abortions.¹

Gottlieb² in 1957 reported 100 cases of endometriosis after vaginal hystrotomy. Similarly large series of scar endometriosis were reported by Dutta³ and Pal⁴ revealing hystrotomy as the most common cause. It is highlighting that during hystrotomy or caesarean section, decidual cells spill and implant on the abdominal wound. Decidual cells do not proliferate themselves but by virtue of their pluro potentiality stimulate metaplasia in the lodging tissue, that form the endometriosis.⁵

CASE

A 25year old, para 2, last born baby by caesarean section three years ago presented with a painful swelling 4 x 5 cm. on the left lateral aspect of a

pfannensteil incision. Swelling was firm, immobile, non fluctuant and tender. Pain was localized. The overlying skin appeared to be normal. The intensity of pain increased with menstruation and responded partially to analgesics. Pain got settled one week after menstruation. Clinically she had normal temperature, pulse, and B.P. Ultrasound revealed two homogenous areas in abdominal wall measuring 2.8x2.7 and 2.5x1.5 cm beneath the left side of incision. The diagnosis of scar endometrioma was made. Patient was prepared for elective surgery. A wide local excision was performed. Two endometriomas were present just underneath the previous scar; one was 4x5 and the other 3x3 cm. Both abdominal wall nodules were extra peritoneal but involving subcutaneous fat, rectus sheath and muscle. The adherent skin, subcutaneous fat, fascia and rectus muscle were excised with a clear margin (1cm). The wound was closed primarily. The excised tissue was sent for histopathological examination which confirmed endometriosis. The post operative recovery remained uneventful.

DISCUSSION

Endometriosis is the presence of endometrial tissue outside the uterus. The exact incidence of endometriosis is not really known, but it is considered that 10-15% of all women in their reproductive age will develop endometriosis and 25-35% of all women who are infertile have endometriosis⁶.

The most common location is within the pelvis and has been reported to occur in as many as 44% of women undergoing laparoscopy for non gynecological symptom.⁷ However, extra pelvic endometriosis is a quite uncommon disorder and difficult to diagnose. The various sites for extra pelvic endometriosis are bladder, kidney, bowel, omentum, lymph nodes, lungs, pleura, extremities, umbilicus, hernial sacs, and abdominal wall.⁸ Abdominal wall endometriomas (well circumscribed mass of endometriosis) in surgical scars most often develop after obstetric gynecological operations.⁹ The reported incidence of abdominal scar endometriosis following hystrotomy is 1.08-2%, whereas after Cesarean section the incidence is 0.03-0.4%¹⁰⁻¹³. This incidence is less than reported by other initial workers.¹⁻⁴ Their reported incidence is 4.5% to 9%, which was reduced by careful precautions and surgical technique to prevent contamination of the wound edges. It was also suggested by Wasfie that to prevent the occurrence of scar endometriosis at the end of surgery on uterus and tubes, the abdominal wall wound should be cleaned thoroughly and irrigated vigorously with high jet solution before closure of abdominal wall.¹⁴

The coincidental occurrence of pelvic endometriosis has been found in 26% of cases of scar endometrioma.^{15, 16}

Several theories have been raised behind the pathogenesis of endometriosis; implantation theory, direct extension theory, coelomic metaplasia theory, induction theory, lymphatic and vascular metastasis theory and composite theory. Most authors support implantation and induction theories for abdominal scar endometriosis. In induction theory, the released substance of the sloughed endometrium can induce the formation of endometriosis, though the viability of the endometrium may not be required. In implantation theory, the viability and ability of the sloughed endometrium to implant is crucial.¹⁷ Time interval between operation and presentation has varied from 3 months to 10 years in different series.¹³ In our case time interval was 3 years post c-section.

Clinically, endometrioma should be differentiated from other surgical swellings like incision hernia, keloids, suture granuloma, hematoma and abdominal wall tumors,¹⁸ like desmoid tumor, sarcoma, lymphoma, or primary and metastatic cancer.¹⁹

Mostly it is perplexed with stitch granuloma, inguinal hernia, lipoma and abscess.²⁰

As endometrioma can mimic surgical swellings that is why most often are referred to general surgeon but this did not happen in our case. The endometriotic lesions are hormone dependant and tend to bleed with each menstrual cycle, becoming more congested and larger in size, giving rise to cyclical pain and discomfort.²¹ It is a distinctive feature in diagnosis of scar endometrioma. If we don't have high index of suspicion it can be a diagnostic dilemma. Various diagnostic methods have been described in the literature such as sonography (USG), color doppler, MRI and CT scan. Francica²² suggested that ultrasonography and Color Doppler in combination with clinical data considerably add to the preoperative diagnosis. These lesions on ultrasound emerge as hypo echoic, vascular and solid with more or less cystic changes. CT usually revealed a solid, well-circumscribed mass. when the lesion is small, MRI can help more in diagnosis because of its high spatial resolution, and it is superior than CT scan in detecting the planes between abdominal muscles and subcutaneous tissue.²³ It has been recommended that Whenever the diagnosis is in doubt, it is tried best to make a preoperative diagnosis with the aid of imaging techniques and FNAC, which has appeared to be accurate in diagnosing endometrioma,²⁴ keeping in mind FNAC demonstrated to be inconclusive in other report.²⁵ A Thapa, & Gupta²⁶ have concluded that the presence of cyclic pain in an incisional mass associated with a cesarean section scar is almost pathognomonic for the condition. When the diagnosis is made on clinical grounds, no further studies are necessary before wide surgical excision. Treatment of choice is wide excision of the lesion. Medical treatment with the use of progestogens, oral contraceptive pills, and danazol is not effective when prescribed. It resulted in partial relief of symptoms. Gonadotrophin agonist has been tried only with prompt improvement in symptoms but no variation in the size of endometrioma.²⁷

The mentioned case presented to us in outdoor. Her history, examination and obvious etiology lead to

immediate diagnosis and management of endometrioma.

CONCLUSION

A surgical scar becoming painful and swollen during menstruation is the typical symptom of scar endometrioma (endometriosis).



Figure 1-A:
Steps of Endometrioma Removal



Figure 1-B:
Steps of Endometrioma Removal



Figure 2-a:
Endometrioma with Chocolate Colored Fluid



Figure 2-B:
Endometrioma

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