



## RESEARCH ARTICLE

### ENDOMETRIOTIC SCAR AFTER HYSTEROTOMY-A RARE CASE

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#### Abstract

The presence of endometrium outside the uterine cavity is known as endometriosis. Scar endometriosis is an uncommon type of extra-pelvic endometriosis, that is usually confused with other surgical or dermatological conditions leading to delay in diagnosis. Abdominal wall or cutaneous endometriomas are quite uncommon with an incidence of less than 1%. 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. We are reporting a scar endometriosis case, involving the rectus sheath which presented as cyclical painful previous hysterotomy scar.

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#### Introduction:-

Karl Von Rokitansky originally identified endometriosis in 1860. Endometriosis is a chronic gynecological disorder defined by the abnormal growth of endometrial tissue (including glands and stroma) in places other than the uterine cavity. A disproportionate number of those afflicted are women of childbearing age [1]. The excruciating pain and infertility caused by endometriosis affects an estimated 89 million women of reproductive age around the world. Ectopic endometrial tissue is most commonly found in the pelvic region (the ovaries, fallopian tubes, the peritoneum, and the recto-vaginal septum). However, it can also be found at sites outside the pelvis, including the lung, the brain, the colon, and the abdominal wall [2-4].

While endometriosis of the abdominal wall can occur without any prior medical intervention, it more commonly manifests after procedures including a cesarean section, hysterectomy, or laparoscopy [5-7]. Cesarean scar endometriosis is the most frequent type of abdominal wall endometriosis, accounting for around 85% of all abdominal wall endometriosis, and its prevalence is stated to be between 0.03% and 0.45% [8]. Metaplasia and cell migration in conjunction with direct seeding are the most accepted processes postulated to explain the genesis of cesarean scar endometriosis [9].

Scar endometriosis manifests clinically in a variety of ways, the most common of which is menstrual-cycle-related pain. In addition to these signs, patients may also experience a palpable mass, discomfort, swelling, and even cyclical bleeding from the scar. Due to the vagueness of the symptoms and doctors' low suspicion thresholds,

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diagnosis is frequently delayed [10]. Endometriosis in a cesarean scar has seldom been known to progress to malignancy [11, 12].

As a result of this factor, patients may experience unnecessary procedures, misdiagnosis, and emotional and physical distress. Clinical evidence, the patient's history, and imaging examinations all contribute to a diagnosis of scar endometriosis. Histopathological analysis of surgically removed lesions, magnetic resonance imaging (MRI), and ultrasonography are frequently used to confirm the diagnosis. As an additional non-surgical option for diagnosis, fine-needle aspiration cytology (FNAC) can be performed [13]. If there is chronic pelvic pain present as well, transvaginal sonography can help direct the diagnosis [14].

Scar endometriosis management depends on a combination of medical and surgical methods, as well as hormone therapy. Surgical excision is the gold standard treatment, with the goal of eradicating the lesion and all surrounding tissue. Adjuvant therapy with hormones like oral contraceptives, gonadotropin-releasing hormone agonists, or progestins can be used to slow the growth of the endometrial lining and reduce the likelihood of its returning [15].

Herein, we present the case of a young woman who was admitted for endometrial tissue detected in the subcutaneous area of her belly and treated by total resection. The patient's medical history included one prior cesarean section and one prior hysterotomy.

#### **Case presentation:**

A 36-year-old woman, was married at age of 18 years divorced from 2 years, Para1+1, 1<sup>st</sup> pregnancy was full term vaginal delivery 18 years ago and second was 5 months miscarriage delivered by hysterotomy 9 years back, Presented to Gynecology clinic with lower abdominal cyclical pain at the site of abdominal scar from 2 years, more on left side of scar and pain usually lasts for 2 weeks, associated with burning sensation for last few years, more with menstruation. effecting her quality of life. Despite using analgesia her pain persists. Had trail of Ovulation suppression with Continuous OCPs for 3 months last year, Pain relieved for some months but started again with resumption of menstrual cycle.

She had regular menstrual cycle with average flow. On examination, tender abdominal scar on the left side. She had no known medical history. Her surgical history included a hysterotomy nine years ago.

Physical examination revealed a well-healed hysterotomy scar with a non-mobile, non-tender, firm, palpable lump 4x5 cm in size at the scar's left edge. Ultrasound showed features of Scar endometriosis. A tentative diagnosis of scar endometriosis was made, and the patient was scheduled for scar endometriosis excision under anesthesia.

Intraoperative finding was big nodule in the left half of previous hysterotomy scar 4x5 cm extending to rectus sheath along with significant fibrosis. The scar was entirely removed, including the nodular area (figure 1), Specimen bisected with knife (figure 2) and Some chocolate material came out suggestive of Endometriosis than specimen sent for biopsy to confirm the diagnosis. Proline mesh was fixed to the rectus sheath to fill the gap.



**Figure 1:-**



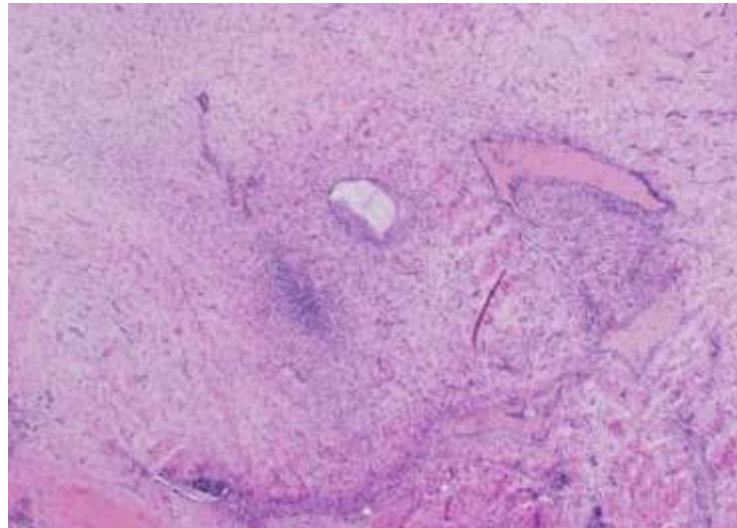
**Figure 2:-**

Histopathology report shows gross description showed partially opened nodular tissue 6.4x4.4x4.0 cm with predominant adipose tissue and a pale brown colored area 3.3 x2.5x2.8 cm with tiny cystic spaces (figure 3).



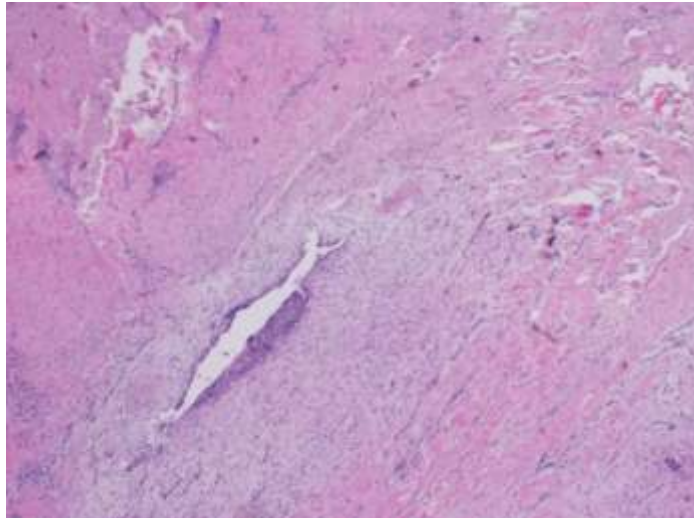
**Figure 3:-**

While microscopically revealed nodular fibromuscular tissue showing areas of prominent fibrosis, multiple foci of endometrial glands with patchy endometrial stromal fibro collagenous tissue, few small microcalcifications and small foci of hemorrhage with attached lobules of adipose tissue(figures 4,5,6 and7). The histomorphological features are consistent with the clinical diagnosis of Folid Endometriosis (Scar Endometriosis).

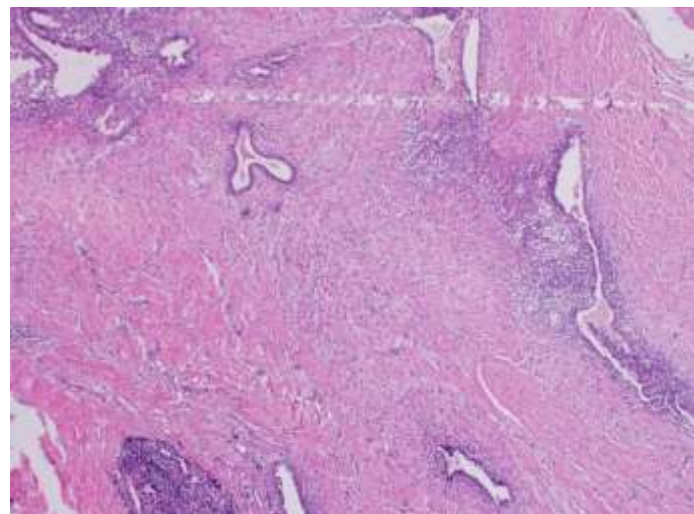


**Figure 4:-**

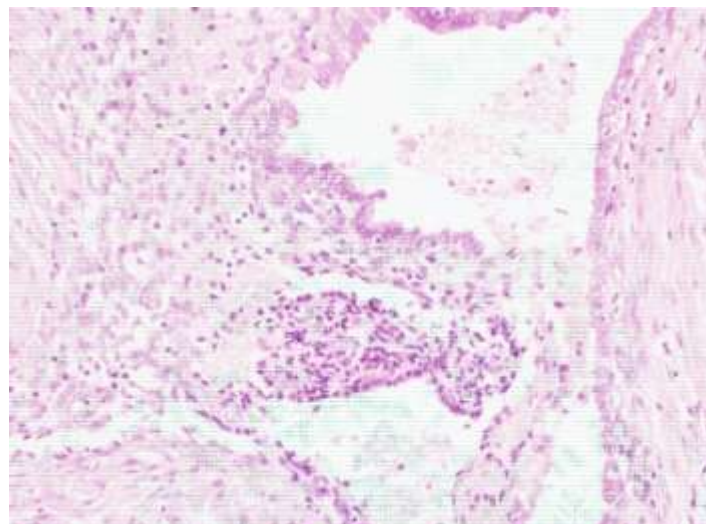




**Figure 5:-**



**Figure 6:-**



**Figure 7:-**

The patient's postoperative course was uneventful, and her pain subsided.

### **Discussion:-**

Endometriosis is a common gynecological condition that affects up to 22% women of all age groups: 8-15% in the reproductive age group (most frequently, multipara between 25 and 35 years) and 6% in the premenopausal age group (16), our patient was 35 years old.

Scar endometriosis is a rare entity which usually presents in women who have undergone a previous abdominal or pelvic operation (17) especially early hysterotomy and caesarean section. In our case, the prior surgical procedure was a hysterotomy.

The usual time interval between surgical procedure and the development of endometrioma is 3 months to 10 years (18), which was almost 7 years in our case.

Various theories have been postulated regarding the development of scar endometriosis. One of them is the direct implantation of the endometrial tissue in scars during the operation [19]. These endometriotic cells proliferate under hormonal stimulus (cellular transport theory) or the surrounding tissue may undergo metaplasia, which leads to scar endometriosis (coelomic metaplasia theory). The endometrial tissue may reach by lymphatic or vascular pathway to surgical scar and then generate to scar endometriosis.

The endometrial implant typically appears as a deep-lying or subcutaneous nodule infiltrating the fascia and the muscle. Bleeding into the tissue during menstruation causes cyclic local pain, tenderness, and discoloration. In cases of superficial nodules, cyclic discoloration, bleeding, and ulceration is appreciable. [20] They are often misdiagnosed as stitch granuloma, abscess, sebaceous cyst, lipoma, fat necrosis, or an incisional hernia [21]

Usually, patients present with a mass near the previous surgical scars, accompanied by increasing colicky like pain during the menstruation [22] as our patient also had the same symptom.

The diagnosis can be made by proper history, examination and investigation like appropriate imaging modalities for example ultrasonography, CT or MRI. Correct preoperative diagnosis is achieved in 20 to 50% of these patients [23] but final diagnosis must be after surgery and biopsy report. Presence of endometrial glands and stroma embedded within fibroblasts, collagen fibers and skeletal muscle cells, with or without hemosiderin laden macrophages makes the diagnosis of scar endometriosis [24] Furthermore the cytologist experience must be the important point to clarify diagnose and to exclude malignancy [25]

Treatment of Endometriosis can be medical or surgical. It is found that the use of NSAIDs, progesterone, oral contraceptive pills, GnRH agonist, and danazol is not much effective, and gives only partial relief without curing the lesion [26]. Our patient was also tried medical therapy for 2 years but not relieved.

The treatment of choice for Scar endometriosis is Surgical excision of scar with 1 cm free margin to decrease the rate of recurrence. The fascial defect may need closure with synthetic mesh, if it is found to involve the underlying sheath [27] as in our case, patient need mesh for closure.

However, preoperative medical treatment may be useful in reducing the lesion [28]. Instead, used as an adjuvant hormonal therapy after surgical excision, it decreased the recurrence from 42.9% to 11% [29]. The incidence of concomitant pelvic endometriosis with scar endometriosis has been reported to be from 14.3 to 26% [30]. Ideally, all patients must be examined for concomitant pelvic endometriosis.

### **Conclusion:-**

Scar endometriosis, though a rare disease but can be diagnosed with proper history, clinical examination and radiological entities. It can be cured by surgical excision with free margins to reduce the recurrences. Follow-up of the patient can play a vital role.

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