

CASE REPORT

A CASE OF ABDOMINAL SCAR ENDOMETRIOSIS: A RARE ENTITY AND REVIEW OF LITERATURE

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HOW TO CITE THIS ARTICLE:

Manjusha Jindal, Uddhav Pawar, Sushama Surve. "A case of abdominal scar endometriosis: a rare entity and review of literature". Journal of Evolution of Medical and Dental Sciences 2013; Vol2, Issue 32, August 12; Page: 6056-6060.

ABSTRACT: Endometriosis is the presence of endometrial tissue (glands and stroma) outside the uterine cavity. Both pelvic and extra pelvic endometriosis has been described. Sometimes extra pelvic endometriosis can occur in abdominal wall following obstetrical and gynecological surgery. The prevalence of surgically proven endometriosis in scars is 1.6%. It can pose a diagnostic dilemma and should be considered in the differential diagnosis of lumps in abdomen in females. We present a case of abdominal wall endometriosis occurring after myomectomy. The management was by wide excision to prevent recurrence. This article is presented to create awareness regarding the condition among gynecologists and surgeons. The incidence, patho-physiology, diagnosis, treatment and prevention of the condition are reviewed.

KEY WORDS: Abdominal wall, scar endometriosis.

INTRODUCTION: Endometriosis is ectopic endometrial tissue that responds to hormonal stimulation and was first described by Rokitansky in 1860, the commonest site being the pelvis. It is associated with both pelvic pain and infertility. Extra pelvic endometriosis has been reported in the bladder, kidney, bowel, omentum, lymph nodes, lungs, pleura, extremities, umbilicus, hernial sacs and abdominal wall¹. The prevalence of surgically proven endometriosis in scars is 1.6%². Abdominal wall endometriosis always develops in surgical scars but there is a report of spontaneous occurrence also³. Endometriosis, in patients with scars, is more common in the abdominal skin and subcutaneous tissue compared to muscle and fascia. Endometriosis involving only the rectus muscle and sheath is very rare⁴. The simultaneous occurrence of pelvic endometriosis with scar endometriosis has been found to be infrequent. Scar endometriosis is rare (1.6%) and difficult to diagnose, often confused with other surgical conditions.

CASE REPORT: A 35 yrs old female patient presented with a painful lump on the lateral aspect of a Pfannenstiel incision, 3 years after a myomectomy. Patient had noticed the lump for five months and was associated with pain during menstruation. She also noticed the lump to increase in size during menstruation. Patient also gave history of congestive dysmenorrhoea and dyspareunia. There was no h/o discharge from the lump. Myomectomy was done for 8 x 8 x 8 cm fibroid uterus confirmed on histopathology; a benign leiomyoma with hyaline degeneration. Patient had a full term normal delivery 4 years back and had regular cycles associated with dysmenorrhoea. On Abdominal examination there was about 5 x 3 cm, firm, non tender, immobile subcutaneous mass associated with blackish discoloration of the skin (Fig1). Ultrasound of the abdomen was performed and it revealed a hypo echoic mass about 4 x 3 cm at the lateral aspect of the scar on abdominal wall, with few cystic areas within. There was no connection between scar and the uterus and no evidence of

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pelvic endometriosis. Uterus was normal size with endometrial thickness of 7 mm. This was initially thought to be a stitch granuloma.

FNAC of the lump was done and brownish fluid was aspirated from the lump. Smears showed amorphous material, RBCs, numerous macrophages laden with hemosiderin, few epithelial cells arranged in sheets and few macrophages. Patient was given Inj Medroxy Progesterone Acetate 150 mg and after 3 months wide local excision of the abdominal wall lump was done. The lump was about 5 x 3 cm, involving skin and subcutaneous tissue and rectus muscle just above the external oblique aponeurosis. Wide excision along with normal margins containing muscle, rectus sheath and subcutaneous tissue was done. Small defect in rectus sheath 3 x 3cm was repaired with prolene mesh. Postoperative period was uneventful. Histopathology showed fibro adipose tissue with interspersed glands and stroma of endometriosis which confirmed diagnosis of endometriosis of abdominal wall scar (Fig2).

DISCUSSION: Endometriosis is common and important clinical entity found in approximately 8-15% of menstruating female⁵. It often causes infertility, dysmenorrhoea, pelvic pain and other problems. 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.

Scar endometriosis usually follows after early hysterotomy and cesarean section⁶⁻¹⁶. The first case was reported by Meyer in 1903. Chatterji⁶ reported incidence of 1.08% following abdominal hysterotomy and 0.03-0.4% after cesarean section. According to Bottino⁷ the incidence was 1% after cesarean section. Minaglia⁸ analyzed 30 years of incisional endometriosis after cesarean and the incidence was 0.08%. Ectopic pregnancy, salpingostomy, puerperal sterilization, laparoscopy, amniocentesis, appendectomy, episiotomy, vaginal hysterectomy, drain site and hernia repair are the other surgical factors for scar endometriosis^{9, 17}. An occasional case of spontaneous scar endometriosis is also reported³. We report a case after myomectomy. Time interval between operation and presentation varies from three months to 10 years in different series¹⁸.

Scar endometriomas are believed to be the result of direct inoculation of the abdominal fascia or subcutaneous tissue with endometrial cells during surgical intervention and subsequently stimulated by estrogen to produce endometriomas (cellular transport theory)¹⁹ or the neighborhood tissue may undergo metaplasia (coelomic metaplasia theory)²⁰. By lymphatic or vascular pathways, the endometrial tissue may reach the surgical scar and then generate scar endometriosis. The reason for higher incidence after hysterotomy is because the early deciduas has more pleuri-potential capabilities and can result in more cellular replication¹⁵.

Good surgical and gynecological histories, as well as a thorough examination with appropriate imaging techniques (ultrasound, CT or MRI), and FNAC usually lead to the correct diagnosis. Differential diagnosis includes hernias, lipomas, hematomas, abscess, keloid, stitch granuloma, desmoids tumor, sebaceous cyst or even carcinoma. Correct pre operative diagnosis is achieved in 20-50% of these patients¹⁹. Malignant change is rarely seen in scar endometriosis. Clear cell carcinoma followed by endometrioid carcinoma is the common histology subtype²¹. The diagnosis is mainly based on clinical grounds as in our case. On sonography, scar endometriosis lesion may appear as cystic or multi cystic, mixed or solid masses, with internal vascularity on colour

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Doppler, but these findings are non-specific²². CT scan also does not play any specific diagnostic role. MRI is more useful modality for pre-surgical assessment of deep pelvic endometriosis, infiltration of abdominal wall muscles and subcutaneous tissues²⁰ but MRI is not cost effective. Fine needle aspiration cytology has been used to assist in establishing the diagnosis. But when suspicion of incisional hernia is present, this diagnostic modality should not be used. Also, recent reports have shown that FNAC could not diagnose scar endometriosis in all patients²³.

The treatment modalities for scar endometriosis are medical and surgical. Medical therapy with combined oral contraceptives, danazol and GnRH analogues produces only partial recovery and recurrence occurs after cessation of treatment with side effects²⁴. Wide excision of the lesion is the treatment of choice, which is diagnostic and therapeutic at the same time²⁴. Mesh can be used for repair in patients where a large defect remains⁹.

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 out²⁵. For prevention of the occurrence of scar endometriosis it has been suggested that at the end of obstetric and gynaecological surgeries the abdominal wall should be cleaned thoroughly and irrigated vigorously with high jet solution before closure²⁶.

CONCLUSION: A high index of suspicion of scar endometriosis should be there for a surgical scar swelling with cyclical pain. The condition can be confused with other surgical conditions. Effort should be made to make a preoperative diagnosis with the help of imaging technique and FNAC. Medical treatment is not helpful. Wide surgical excision is the treatment of choice. Regular follow-up is necessary to detect recurrence.

Consent: Written informed consent was taken from the patient for the publication of this case report and any accompanying images.

Funding: none

Competing interests: none declared

Ethical approval: Not required

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Figure1: Swelling on lateral aspect of incision

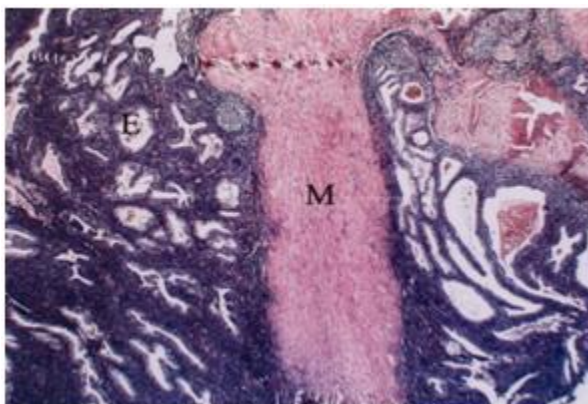


Figure2: Photomicrograph showing endometrial glands interspersed with muscle tissue

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Date of Submission: 31/07/2013.
Date of Peer Review: 01/08/2013.
Date of Acceptance: 05/08/2013.
Date of Publishing: 10/08/2013.