Scar Endometriosis: A Case Report

ABSTRACT

Endometriosis is defined as functioning endometrial glands and stroma outside the uterus. Pelvic endometriosis is more common than extrapelvic sites. Among extrapelvic sites, scar endometriosis is a very rare entity and is difficult to diagnose. It can affect the scars like caesarean section, laparotomy, perineal scars in episiotomy. The diagnosis mainly requires a high index of suspicion and the treatment of choice wide excision. Here, we present a case of caesarean section scar endometriosis in a 33-year-old patient.

KEYWORDS scar endometriosis, caesarean section, episiotomy

INTRODUCTION

Endometriosis is the presence of functioning endometrial gland and stroma outside the uterus. Rokitansky in 1840 reported the first case of endometriosis. Pelvic endometriosis is much more common than extra pelvic sites. The common sites are ovary, pelvic peritoneum, utero sacral ligament, POD. Extra pelvic sites like kidney, lungs, bladder, bowel, umbilicus, abdominal and perineal scar, nasal mucosa are rare. Pelvic disease can be explained by retrograde menstruation and coelomic metaplasia theory whereas extra pelvic spread can be explained by haematogenous, lymphatic, immunologic or by direct implantation theory. Though all these theories have been proposed the exact pathogenesis of endometriosis is still unknown.

CASE REPORT

33-year-old female presented with swelling in the abdomen for the last 2 years that was gradually increasing in size, associated with mild pain and no discharge. It was not associated with vomiting or any systemic symptoms. Her menstrual cycles were regular average cyclical with dysmenorrhea. She has one child delivered by caesarean section 4 years back. She had no other significant medical or surgical history. On examination, vitals stable, on local examination swelling appears to arise from the lateral end of CS scar. Swelling of 4 × 4 cm size noted which was firm, non-mobile, tender, hyper pigmented and not associated with any discharge (Fig. 1). She has been treated with antibiotics and anti-inflammatory drugs previously but swelling persists and gradually increases in size. Fine-needle aspiration cytology (FNAC) was done that shows monolayer sheets of epithelial cells with scanty cytoplasm with irregular stromal fragments of spindle cells, inflammatory cells and hemosiderin laden macrophages were present in haemorrhagic background suggesting the diagnosis of endometriosis. She was planned for wide local excision of swelling. After excision, it was sent for histopathology which confirms the diagnosis of scar endometriosis. Gross shows fibrofatty tissue measuring 7 × 7 × 4 cm, cut section shows an irregularly margined fibrous scar. Histopathology shows endometrial gland and stroma with marked desmoplastic reaction with haematoxylin eosin stain positive (Figs. 2 & 3).

DISCUSSION

Incidence of scar endometriosis depends partly on primary surgery, being 1.08% for mid trimester abortion and 0.03–0.4% for caesarean section scar. The pluripotency of early decidua may be the cause for increased incidence after mid trimester abortion. In 1903, Meyer reported the first case of scar endometriosis. Scar endometriosis can be explained by iatrogenic transplantation of endometrial implants to the wound edge during any surgical
Scar endometriosis is a rare entity and should be suspected when a lady presented with a mass and pain at the scar site after obstetric surgery. Though the clinical diagnosis is more important, USG and FNAC also help in the diagnosis. Diagnosis was confirmed by histopathology.

**CONCLUSION**

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Fig. 1 Clinical picture.

Fig. 2 USG picture.

Fig. 3 Haematoxylin-eosin Stain × 400. Endometrial glands and stroma within fibrous tissue.

immunological theory for endometriosis has been found out that explains the inadequate response of the immune system to retrograde flow or the implantation of endometriotic tissue. Time interval may vary from 6 months to 12 years after surgery. The frequency of scar endometriosis is increasing due to increased incidence of caesarean section and increasing trend of laparoscopic surgeries. There are certain cases which can’t be explained by these theories for scar endometriosis. There are some primary cutaneous endometriosis without prior abdominal surgery such as vulva, perineum, groin, and nasal cavity.

De oliviera et al. demonstrated that heavy menstrual blood flow and alcohol consumption were positively related to scar endometriosis and conversely high parity may be a protecting factor.

Diagnosis is mainly clinical with any mass near the surgical site that may show cyclicity with menstrual cycles. Many investigations like Ultrasound, CT scan and MRI may help but are nonspecific. Francica et al. in their study showed diagnostic features of scar endometriosis in ultrasonography as (1) A hypoechoic inhomogeneous echo texture with internal scattered hyperechoic shadow. (2) Regular margin often speculated infiltrating the adjacent tissue and (3) A hyperechoic ring of variable width and continuity. On colour Doppler single avascular pedicle entering the mass at the periphery is one of the diagnostic features. On CT scan, it may appear as circumscribed solid or mixed mass enhanced by contrast and shows hemorrhages. Kinkel et al. revealed sensitivity and specificity of MRI in diagnosing endometriomas to be 90–191% and 91–98%, respectively. Infiltration of the abdominal wall and deep tissue is better assessed by MRI. FNAC can give some idea but definitive diagnosis can be made after excision and histopathological study. Scar endometriosis is often misdiagnosed as stitch granuloma, abscess, lipoma, sarcoma, desmoid tumour. So any case of post-surgical swelling requires a high index of suspicion, good surgical history as well as through evaluation. Histology is the hallmark of diagnosis. It is satisfied if endometrial glands, stroma and hemosiderin pigments are seen.

Cyclicity in pain during menstrual cycles is a characteristic feature but that is present in few cases posing challenges in the diagnosis of scar endometriosis.

Hormone therapy with progesterone, GnRh analogue, has not been found to be effective with high recurrence after cessation of therapy. Treatment of choice remains wide surgical excision with atleast 1 cm margin.

In practice, the risk of scar endometriosis is found to be higher in incisions with possible contact with endometrial tissues like episiotomy, hysterotomy, caesarean section, laparotomy/laparoscopy for ectopic pregnancy. Several factors can explain scar endometriosis. Direct implantation of endometriotic cells during surgery is the most accepted explanation. Non closure of visceral and parietal peritoneum during caesarean section and dissemination of endometriotic cells during surgery are associated with increased incidence of scar endometriosis. Recently, an
REFERENCES