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Case Report

Episiotomy scar endometriosis

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Introduction

Endometriosis is defined as the presence of endometrial glands and stroma outside the uterine endometrial cavity. It is a benign, chronic, and estrogen-dependent disorder. It generally occurs in pelvic sites such as ovaries, posterior cul-de-sac, pelvic peritoneum, bowel, and rectovaginal septum. Extrapelvic endometriosis has been described in various sites such as nervous system, thorax, urinary tract, gastrointestinal tract and in cutaneous tissues. Endometriosis at scar site can be found after cesarean, hysterectomy, amniocentesis, laparoscopic trocar tract, or perineal episiotomy.¹ Episiotomy scar endometriosis is a relatively uncommon condition and usually diagnosed late because of unawareness about the condition among general surgeons, resulting in prolonged suffering to the patient and increased morbidity.

Case report

A 38-year-old female patient presented to Gynaecology outpatient department with complaints of pain and swelling in perineal region for 2 years, both increased during menstruation. She also had complaints of dyspareunia. Her menstrual cycles were regular with average flow, not associated with dysmenorrhea. She had 3 vaginal deliveries, and the last childbirth was 8 years ago. On inspection, perineum appeared normal (Fig. 2a), and on vaginal examination, an 3 cm × 3 cm well-defined nodular mass felt at the site of previous right mediolateral episiotomy (RMLE), firm to hard in consistency and tender. Same nodular mass was felt on per rectal examination. Rectal mucosa was free of tumor.

Based on characteristic history and examination findings, a probable diagnosis of deep episiotomy scar endometriosis was considered. There was no sign or symptom suggestive of associated pelvic endometriosis. Magnetic resonance imaging (MRI) scan of pelvis was done to rule out extension to the anal sphincter. The report was suggestive of a lesion measuring 3.5 cm × 2.1 cm × 2.4 cm at RMLE site, abutting the external anal sphincter with no loss of fat planes, and the likely diagnosis was scar endometriosis (Fig. 1). There was no evidence of pelvic endometriosis on MRI. Episiotomy scar endometriosis excision was done under combined spinal-epidural anaesthesia. Whole of the endometriotic tissue with a margin of 1 cm of healthy tissue was excised (Fig. 2b). The nodule was closely abutting on rectal mucosa. Specimen was 3 cm × 3 cm nodular, fibrotic mass with hemorrhagic spots (Fig. 3). Fig. 4 shows H&E stained slides. The presence

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Fig. 1 – T1-weighted MRI image, axial plane through pelvis shows endometriosis at the episiotomy site (arrow).

of endometrial glands and stroma confirmed the diagnosis of episiotomy scar endometriosis.

Discussion

Episiotomies are most commonly performed procedure in obstetric practice. Infection, fistula formation, wound gaping, and painful scarring are known complications of this procedure. Development of endometriosis at this site is quite rare and usually reported in the literature as a single case report or small series.^{2,3} The incidence of episiotomy scar endometriosis is very rare. The article by Leite et al.³ highlights its rarity. Of 29,135 deliveries, there were 33 cases of scar endometriosis; of these, 31 were related to cesarean scar and only two to episiotomy. The incidence of episiotomy scar endometriosis was 0.01%.³ Several theories about pathogenesis of endometriosis include retrograde menstruation, direct implantation, lymphatic dissemination, coelomic metaplasia, or hematogenous spread. The etiology of episiotomy scar endometriosis can be explained by the theory of transplantation,⁴ mechanical transplantation of endometrial cells to open episiotomy scars during a vaginal delivery. Zhu et al.⁵ described three typical characteristics of perineal scar endometriosis:

1. Past perineal tear or episiotomy during vaginal delivery.
2. A tender nodule or mass at the perineal lesion.
3. Progressive and cyclic perineal pain.

If these criteria are met, the predictive value of perineal endometriosis is 100%. All these criteria were met in our patient. What is interesting is, our patient had symptoms 6 years after delivery. In a series of 17 cases of endometriosis of episiotomy scar, the latent period from delivery to development of symptoms was 2–240 months.⁶ Most of the cases are diagnosed on the basis of typical history and physical examination. There is some role of imaging

Fig. 3 – 3 cm × 3 cm nodular mass with hemorrhagic areas.

Fig. 4 – H&E stained slides showing presence of endometrial glands and stroma consistent with endometriosis surrounded by scar tissue (40×) with high power view showing endometrial glands (100×) [arrow].

Fig. 2 – (a) No nodule on inspection. (b) After dissection, nodule was deep (arrow).

studies such as MRI, CT scan, and anal endorectal ultrasound in the preoperative assessment of sphincter involvement and to determine the extent of the operative procedure in cases of larger lesions, or to rule out other possibilities such as cheloid, hematoma, granuloma, abscess, cysts, and tumor.

Treatment of episiotomy scar endometriosis includes wide local excision of the endometriotic tissue with a margin of 1 cm of healthy tissue. This is important even if it necessitates primary sphincteroplasty when the anal sphincter is involved, to reduce the risk of recurrence. A recurrence rate of 3.3% has been reported even with complete wide excision.² Hormone therapy may be used for large lesions or those with sphincter involvement before surgery to reduce size; this may also help reduce recurrence.² Delaying surgery may mean progression of lesion with involvement of anal sphincter.

The advantage of surgery includes symptomatic relief, obtaining tissue for pathology and exclude possible malignancy. Three cases of malignant transformation in perineal endometriosis following an episiotomy scar have been reported till date.⁷ A comprehensive history and meticulous pelvic examination is all that is required for diagnosing perineal endometriosis. High index of suspicion should be kept in mind in women who have delivered vaginally and present with complaint of perineal nodule with cyclic pain. The time since last delivery is not a deterrent in diagnosing this condition, as there may be latent period of many years before symptoms develop. Surgical intervention is the best approach for treatment, and permanent cure is usually achieved after complete excision of the perineal endometriosis.

Conflicts of interest

The authors have none to declare.

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