



Perineal Endometriosis: case report

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Abstract:

Introduction: Endometriosis is the presence of endometrial- like tissue outside the uterine cavity, which most commonly affects peritoneal surfaces, ovaries and uterine ligaments. Even it is quite rare, endometriosis may affect the vulva, vagina, rectovaginal septum or perineal region, generally secondary to obstetric or surgical trauma. In this case report, we present a patient with perineal endometriosis in an episiotomy scar.

Case report: A 37 years-old women, with a history of three spontaneous miscarriages and an episiotomy after vaginal delivery. presented with a painful mass in episiotomy scar, six months after normal, not complicated vaginal delivery. Physical examination found a firm nodule in the episiotomy scar. Pelvic MRI revealed a suspicious right perineal lesion extending to the ana margin and infiltrating the sphincter. Surgical excision of the mass was performed. the specimen was sent for histopathological examination. The final diagnosis was that of perineal endometriosis.

Conclusion: Perineal endometriosis remains a rare condition, it should be considered in all patients with an anterior vaginal delivery and a painful perineal mass during menstrual cycle, a wide excision of the affected tissue remaining the best option for a permanent cure.

Key Words: Endometriosis, scar episiotomy, case report, perineal mass, surgical excision.

Introduction:

Endometriosis is defined as the presence of functional endometrial tissue outside the uterine cavity [1]. Statistic data showed that decreasing order of frequency is following: ovaries (30%), uterosacral and large ligaments (18–24%), fallopian tubes (20%), pelvic peritoneum, pouch of Douglas and gastrointestinal tract. Extraperitoneal locations include cervical portion (0.5%), vagina and rectovaginal septum, round ligament and inguinal hernia sac (0.3–0.6%), navel (1%), abdominal scars after gynecological surgery (1.5%) and cesarean section (0.5%). Endometriosis rarely affects extra-abdominal organs such as the lungs, urinary system, skin and central nervous system [2, 3].

The following report describes one case of perineal endometriosis in episiotomy scar treated by wide surgical excision.

Case report: A 37 years-old women, with a history of three spontaneous miscarriages and an episiotomy after vaginal delivery. presented with a painful mass in episiotomy scar. The pain was appeared six months after normal, not complicated vaginal delivery. The pain was progressive and cyclical, correlating with her menstrual cycle. After 1 year, the patient noticed the nodule on episiotomy scar. She had no familial and personal history of Endometriosis.

During physical examination, a firm nodule measuring approximately 3 cm was palpated in the episiotomy scar, intimately associated with vagina and anal canal. Pelvic MRI revealed a suspicious right perineal lesion extending to the anal margin and infiltrating the sphincter [Figure 1]. Surgical excision of the mass was performed. the specimen was sent for histopathological examination.

Gross examination found a perineal mass, measuring 3x2,5x 1,5 cm, topped by a skin flap measuring 3x2,5x1,5 cm.

Histopathological examination revealed cutaneous and subcutaneous tissue with endometrial-type glandular structures, lined with regular cells showing no cyto-nuclear atypia, surrounded by a cytogenic chorion [Figure 2].

On immunohistochemical examination, the glandular structures expressed hormone receptors (estrogenic and progestogenic), and the cytogenic chorion was CD10 positive [Figure 3].

The final diagnosis was that of perineal endometriosis.

The post-operative course was uneventful, and the patient was discharged on the fifth post-operative day. Six months after operation, the patient is symptom-free with no signs of recurrence.

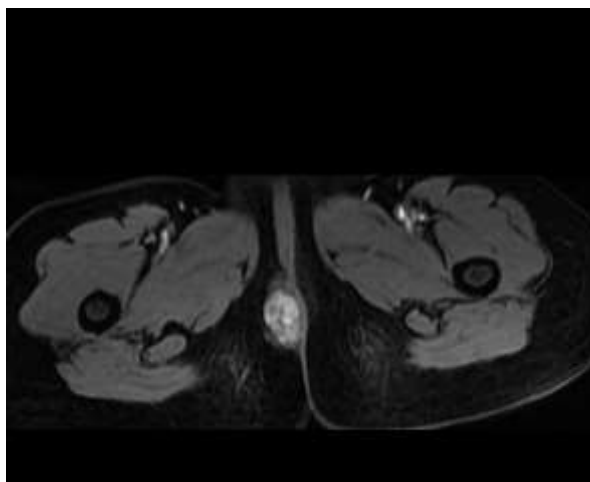


Figure 1a: T1 fatsat axial section showing s tissue mass in the perineal region lateralized to the right with extension to the perianal region

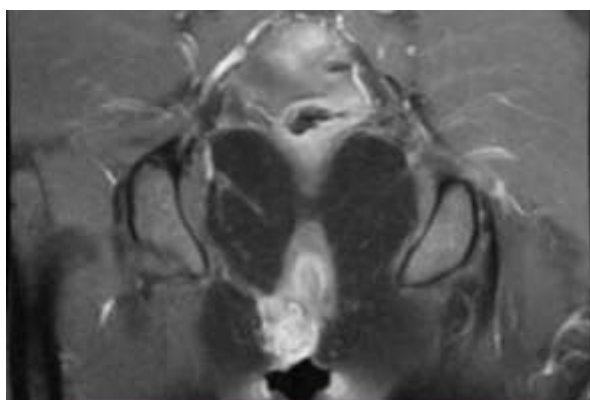


Figure 1b: coronal T1 fatsat section with gado injection showing an irregular contoured tissue mass in the perineal region strongly enhanced after gado injection

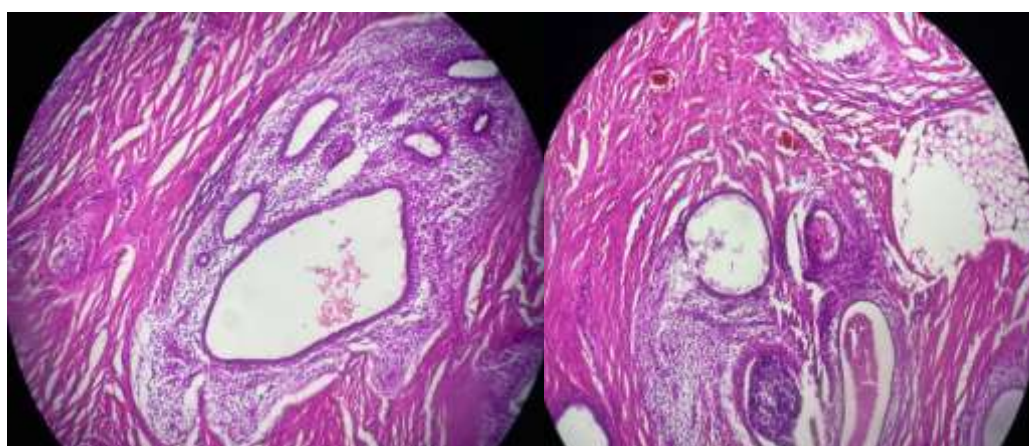


Figure 2 : irregular endometrial gland with surrounding compact stroma (hematoxylin and eosoin x 10)

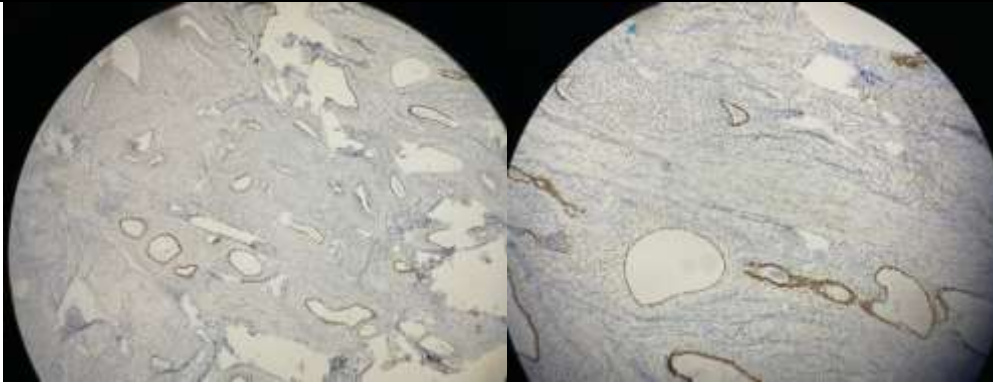


Figure 3a: hormone receptors (estrogenic and progesterogenic) showing strong nuclear staining in benign endometrial glandular structures



Figure 3b: CD10 shows strong cytoplasmic staining in endometrial stroma cells.

Discussion:

Endometriosis is a chronic and benign condition characterized by the growth of endometrial tissue outside the uterus. It affects approximately 10% of women of childbearing age [4]. While the most common locations for extra-uterine endometriosis include the ovaries, uterine ligaments, rectovaginal and vesico-uterine spaces, as well as the uterine cervix, perineal endometriosis is an exceptionally rare occurrence. Perineal endometriosis represents the least frequent form of extra-uterine endometriosis. Typically, it is associated with signs of adenomyosis in women during their reproductive years. However, our patient's case presents a rare situation where perineal endometriosis occurs without these typical signs.

Endometriosis is a common disease, but the etiology and pathogenesis of endometriosis are still unclear. Many theories have been proposed to explain this condition as the endometrium implantation theory, the coelomic metaplasia theory, the lymphatic and vascular metastasis theories, the mechanical transplant theory of remnant endometrium in spontaneous or operative delivery, the embryonic rests theory, a recent hypothesis based on the relationship of local immune factors [5].

Perineal endometriotic lesions can be explained by some of those theories. During vaginal delivery in combination with episiotomy implantation of endometrial tissue in episiotomy, wound occurs [6]. Angio-lymphatic theory and mechanical transplantation of endometrial cells during surgical procedure are among the others, which put forward explanation of the etiopathogenesis of other ectopic and perineal endometriotic lesions [7]. However, other factors, such as immunological, genetic and familial, could be involved in the pathogenesis of this disease. Most of the endometriotic lesions in the perineal area occur secondary to obstetrical and surgical trauma and mostly on episiotomy scars [8]. Among those theories and literature, we believe that perineal endometriosis in our case could be the result of implantation in the perineal area during parturition or instrumentation because the patient had episiotomy with endometriotic center located in the episiotomy scar. Also, perineal endometriosis with perineal trauma can be explained by the theory of transplantation.

For certain diagnosis, except family and personal history and physical examination, biopsy, ultrasonography (USG) and magnetic resonance imaging (MRI) are very important. USG is recommended for detecting the endometriomas of the ovary, bladder and rectum, but it is less sensitive than MRI for the assessment of deep pelvic endometriosis [1]. Pelvic MRI has a greater sensitivity (90–92%) and specificity (91–98%) for the diagnosis of endometriomas than the other non-invasive imaging techniques [1, 9]. MRI is highly sensitive in detecting very small masses and offers excellent differentiation of endometriomas from neighboring tissue.

A certain diagnosis can only be accomplished by histological examination of the lesion, as done in the case of our patient. Endometriosis is one of the commonest benign gynecological conditions, but the incidence of endometriosis at the episiotomy site is quite rare. Although endometriosis has been associated with the occurrence of menstrual cycles, it can affect between 2 and 5% of menopausal women and generally occurs as a side effect of hormone use [10].

The perineal endometriosis is a specific disease with possibility of the malignant transformation, and therefore adequate surgical treatment is necessary. Primary treatment modality is the surgical excision of the lesion.

Conclusion:

Perineal endometriosis remains a rare condition, it should be considered in all patients with an anterior vaginal delivery and a painful perineal mass during menstrual cycle, a wide excision of the affected tissue remaining the best option for a permanent cure[11].

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