Case Report

A case of vulvar endometrioma mimicking a Bartholin cyst

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Abstract

Endometriosis is a commonly encountered benign gynecological disease, involving extrauterine growth of both endometrial glands and elements of endometrial stroma. The vulva is not exempt from endometriotic disease. However rare, endometriosis may occur in the Bartholin gland, in episiotomy scars, postoperative perineal incision sites and vulvar lacerations. Risk factors for vulvar endometriosis include prior perineal surgery and parity. The following case presents a patient with a localised vulvar lesion, mistaken for a Bartholin cyst, treated with complete excision, later to be identified as a vulvar endometrioma.

Key Words:
Endometriosis, vulvar endometrioma, Bartholin cyst

Introduction

Endometriosis is a commonly encountered benign gynecological disease, involving extrauterine growth of both endometrial glands and elements of endometrial stroma. Like ectopic endometrial tissue, these ectopic foci are susceptible to cyclic hormonal changes. This progressive inflammatory disease is mostly encountered in the later half of the reproductive era and is reported with a prevalence of 7-10% in the general population [1-3]. The most frequently involved locations are defined as; the ovaries (30%), uterosacral and cardinal ligaments (18-24%), the fallopian tubes (20%), pelvic peritoneum and gastrointestinal system [4-5]. However, there are various reports on disease in extrapelvic, more eccentric locations, such as the inguinal canal, thoracic cavity, the nasal epithelium, abdominal wall [6-8]. These reports have motivated the surge in research concerning possible etiology; besides the well-known theories like retrograde menstruation, coelomic metaplasia and transplantation (seeding). The vulva is not exempt from endometriotic disease. Endometriosis may occur primarily in the Bartholin gland and secondary in episiotomy scars, postoperative perineal incision sites and vulvar lacerations [9-12]. Vulvar endometriosis is considerably rare and is therefore generally overlooked. The incidence of vulvar endometriosis in patients treated for pelvic endometriosis has been reported to be 0.37% [13-14]. Risk factors for vulvar endometriosis are denoted as prior perineal surgery and parity. The reported rate of vulvar endometriosis is considered to be lower than expected and most are detected as asymptomatic vulvar masses, however, the most predominant symptom is cyclic vulvar swelling, vulvodynia, and dyspareunia. The following case describes a patient with vulvar endometriosis mimicking a Bartholin cyst, successfully treated with local excision.

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Case Presentation

A 30-year-old woman, gravida 2, para 2, applied to Hitit University Education and Research Hospital complaining of superficial dyspareunia and vulvar swelling. The patient had a spontaneous vaginal delivery 2 years ago, during which a mediolateral episiotomy was performed. Her episiotomy had been infected and the dehiscent incision was followed-up with antibiotic treatments and afterwards a secondary repair was performed. Her history of dyspareunia had developed prior to this event, but had progressively increased in severity. Due to her superficial coital pain she had consulted to numerous specialists and was generally treated for vaginitis until she was told that the pain derived from granulation tissue, secondary to her episiotomy scar and that she should use simple analgesics. Her medical and surgical history was not remarkable and she did not have chronic pelvic pain, cyclic vulvodynia or deep dyspareunia. She mentioned that she had felt a “lump” previously, and that it had recently enlarged. On her application, examination of the perineum was carried out, revealing a 2 cm firm nodular lesion in the right-side labium minus, just superior to her previous episiotomy scar, located in the site of the right-side Bartholin gland (Figure 1). The lesion did not seem to be associated with either the scar or the anus. It was painful with palpation and no vulvar discoloration was evident. Her routine speculum and bimanual examination was noted as normal. With the given background information and absence of cyclic change, she was diagnosed with a simple Bartholin cyst and local excision was scheduled. The lesion was extirpated without being ruptured and sent for evaluation. Her postoperative follow-up was uneventful and she was discharged from hospital the same day. The specimen’s histopathological result revealed endometrial tissue, but no trace of bartholin gland or scar tissue (Figure 2,3). The patient was then diagnosed with primary vulvar endometriosis, independent of the bartholin gland and episiotomy scar. Six months post-operatively she showed no signs of recurrence.
Discussion

Endometriosis is one of the most frequently encountered benign diseases in reproductive women and is most generally associated with chronic pelvic pain, cyclic pain, dyspareunia and infertility. Endometriotic foci are generally located in the pelvis and therefore can be underestimated and overlooked in other regions. Vulvar endometriosis is relatively rare, but a few key points may alert the clinicians for the correct diagnosis.

According to Chen et al, reproductive age, a history of vaginal delivery and palpable perineal nodules near a scar associated with cyclic pain and swelling suffice to diagnose perineal endometriosis accurately [15]. The case presented here, failed to account for cyclic changes, falsely leading us to believe she had a Bartholin cyst. Other benign vulvar tumors that should be considered in differential diagnosis are defined as mucous cysts, epidermal inclusion cysts, fibroma, fibromyxoma, lipoma, pyogenic granuloma, heterotopic sebaceous glands and hyperplasia [16]. Vulvar endometriosis is almost always in women within the reproductive age range with a history of vaginal birth. This supports the hypothesis of the transplantation of decidual cells into the vulvar area during birth. However, few reports have also disclosed the detection of ectopic endometrial tissue in patients without a history of vaginal delivery, questioning this hypothesis. Cinardi et al., described a patient who previously undergone abdominopelvic resection for rectum cancer, later to deliver via elective cesarean-section [17]. The reported patient subsequently had been diagnosed with perineal scar endometriosis. Buda et al. similarly reported a chronic case of vulvar endometriosis, following an operation for a Bartholin abscess [18]. Although the authors did not specify her route of delivery, they attributed the etiology of the patient’s disease to a dilation& curettage procedure performed prior her onset of symptoms. Therefore, it would probably be wise to include various types of perineal/ vulvo-vaginal procedures when assessing vulvar nodularity and pain. With the “transplantation of decidual cells during vaginal delivery” theory, a higher prevalence of overt vulvar endometriosis would be expected. The rarity of this entity however, is proposed by the following; (a) local inflammation at the episiotomy site results in a hostile medium for endometrial cells, (b) the postpartum relative decrease in estrogen levels disrupts the seeding process [14]. Due to this, the “lymphatic and hematologic dissemination” theory may gain significance. In our case, the patient’s endometrioma was remote from her previous episiotomy scar, such that a Bartholin cyst was suspected, leading us to believe the latter theory may apply. This case is a reminder that vulvar endometriosis should be included in the differential diagnosis of patients with superficial dyspareunia, vulvar swelling and a history of vaginal delivery. Thorough questioning of cyclic pain and previous procedures concerning the perineum may lead to a more concise diagnosis. This case is also significant in that vulvar endometriosis can erroneously be diagnosed as a Bartholin cyst. Wide surgical resection is a reasonable choice for primary treatment.

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Conflict of Interest Statement
The authors declare no conflict of interest
References