Case Report

When Rarity Strikes: Documenting Spontaneous Cutaneous Endometriosis in the Mons Pubis Region

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Abstract

This case report highlighted a rare instance of spontaneous cutaneous endometriosis in the mons pubis region, presenting significant diagnostic challenges. Endometriosis, characterised by the presence of endometrial-like tissue outside the uterus, can manifest in various atypical locations, complicating diagnosis and treatment. We detailed the case of a 37-year-old woman with a history of involuntary subfertility who experienced cyclic pain and a palpable mass in the right mons pubis correlated with her menstrual cycle. Unfortunately, there was a substantial delay in diagnosis, with an average interval of one year from symptom onset to surgical intervention. Surgical excision was ultimately performed, confirming the diagnosis of endometriosis through histopathological examination. This case underscores the necessity for clinicians to consider cutaneous endometriosis in differential diagnoses for women presenting with cyclical pain and masses. Prompt recognition and surgical intervention are crucial, as they can lead to effective treatment and resolution of symptoms, emphasising the importance of heightened awareness among healthcare providers regarding this condition.

Keywords: Endometriosis; mons pubis; surgical excision

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Introduction

Endometriosis is a complex and chronic inflammatory disease defined as endometrium-like tissue outside the uterus1. It is a prevalent gynaecological condition which affects 2-10% of women of reproductive age (1). The condition is often associated with debilitating symptoms, including dysmenorrhea, chronic pelvic pain, dyspareunia and infertility (2). While endometriosis predominantly manifests in pelvic organs such as ovaries and fallopian tubes, it can also occur in extra pelvic regions, including skin (2).

Among the various forms of extra pelvic endometriosis, vulvar and mons pubis endometriosis are particularly rare. Reports indicate that vulvar endometriosis accounts for less than 0.5% of all cases of endometriosis (3). Specifically, spontaneous cutaneous endometriosis in the mons pubis region is highly uncommon, with only a few documented cases in the literature. This rarity poses significant diagnostic challenges for clinicians, as symptoms may overlap with other conditions such as infections or cysts (3).

Patients with mons pubis endometriosis often present with indurated lesions and cyclical pain that may worsen during menstruation (3). The atypical nature of this presentation can lead to delays in diagnosis and treatment, adversely affecting patients' quality of life (3).

This case report aimed to detail a unique instance of spontaneous cutaneous endometriosis in the mons pubis region in a 37-year-old woman with infertility, chronic pelvic pain and an indurated lesion. By sharing this case, we hope to contribute to the limited available literature and enhance clinicians' awareness of this rare manifestation and its implications for diagnosis and treatment.

Case report

A 37-year-old nulliparous woman with subfertility for 10 years sought medical attention for a mass on the mons pubis region, associated with cyclical pain for a year. She was initially referred to the surgical team for a right inguinal mass and underwent several investigations that yielded negative results. On examination, there was a palpable lump on the mons pubis, measuring 3x3 cm. The lump was round, with restricted mobility and a smooth surface that was hard in consistency. An abdominal ultrasound indicated a superficial lesion in the right mons pubis (Fig. 1). Given her clinical history and presentation, endometriosis was considered a primary differential diagnosis, particularly since her pelvic ultrasound did not reveal any abnormalities. During the surgical procedure, the findings were consistent with preoperative assessments. The mass was located above the pubic bone; notably, the overlying skin showed no signs of inflammation or other changes. Surgical excision was performed successfully, carefully preserving surrounding structures (Fig. 2). Histopathological analysis of the excised tissue confirmed the diagnosis of endometriosis in the right mons pubis mass (Fig. 3). Following surgery, the patient was treated with two doses of gonadotropin-releasing hormone (GnRH) analogues to manage her symptoms effectively. Subsequently, she was placed on Dianogest as she expressed no immediate plans for conception.

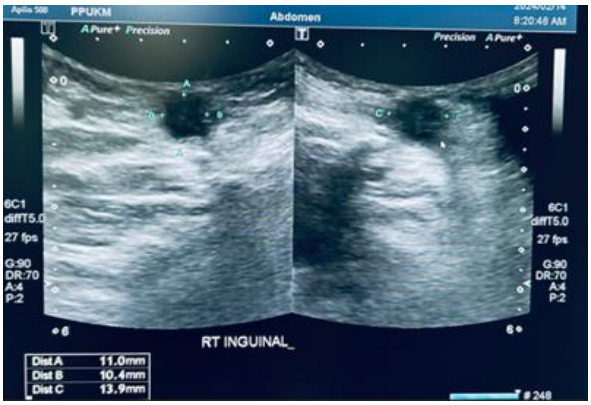

FIGURE 1: Superficial hypoechoic lesion in the subcutaneous tissue at the right inguinal region measured 11x10.4mmx13.9mm (AP X W X CC) - no intralesional vascularity or calcification was seen within The underlying anterior abdominal wall were preserved. No subcutaneous fluid collection hematoma or other mass was identified

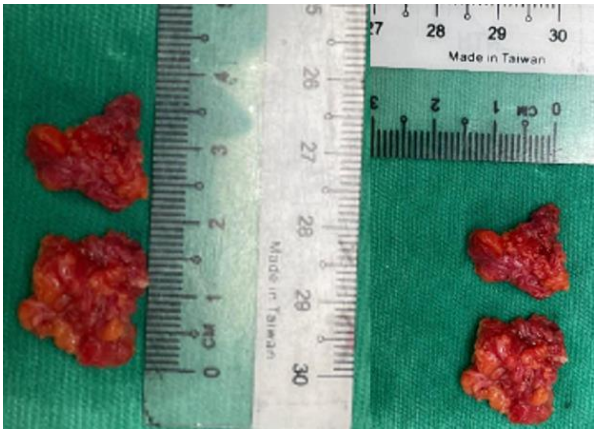

FIGURE 2: Right Mons Pubis Mass measured 3.5x1.5 cm above pubic bone. It was firm in consistency and mobile

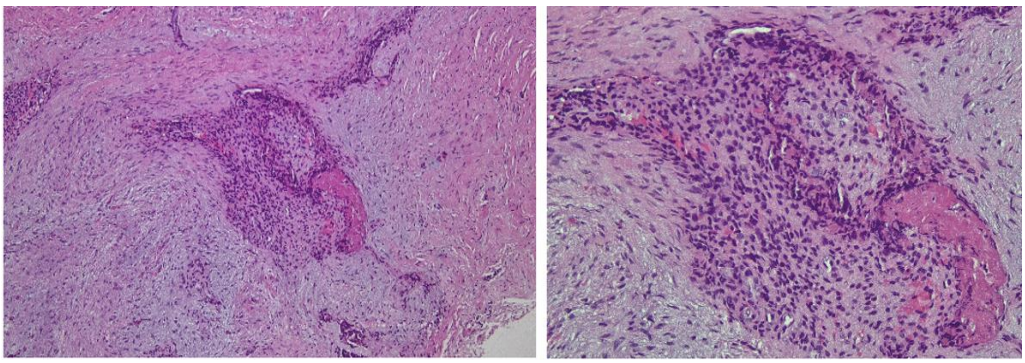

FIGURE 3: Section shows multiple fragments of tissue harbouring scattered and widely distributed endometrial stroma. The endometrial stroma was cellular, appeared myxoid, and stained positive with CD10. No nuclear atypia or evidence of malignancy was seen

Spontaneous cutaneous endometriosis, particularly in the mons pubis, remains an exceptionally rare, with only a handful of cases documented in the literature. Our patient's clinical presentation aligns with typical symptoms associated with cutaneous endometriosis, including cyclical pain and localised swelling. However, despite the symptoms, the diagnosis was missed because it was treated as an infection. As highlighted in previous studies, misdiagnosis is common due to overlapping symptoms with other dermatological or gynaecological conditions (2).

The pathophysiology of spontaneous cutaneous endometriosis remains poorly understood. Theories suggest that ectopic endometrial tissue may arise from lymphatic spread or retrograde menstruation. However, these mechanisms are challenging to confirm in cases without prior surgical scars (4). In our patient, the absence of past pelvic surgery or instrumentation raises questions about the underlying mechanisms leading to ectopic tissue formation on the mons pubis. The potential for genetic predisposition to endometriosis has been suggested. However, our patient did not have a family history of the condition, indicating that further research is needed to elucidate the aetiology of such rare occurrences (5).

In cases of mons pubis endometriosis, ultrasound can reveal hypoechoic lesions in the subcutaneous tissue with increased vascularity on Doppler imaging, which is indicative of endometriotic tissue. Such features are crucial to distinguish endometriosis from other potential diagnoses, such as abscesses or benign tumours (6). Despite its advantages, ultrasound has limitations, as negative findings do not exclude the presence of endometriosis. In addition, there are no pathognomonic radiological findings to support the diagnosis (7). Thus, clinicians should maintain a high index of suspicion in symptomatic patients even with normal imaging results (8). Despite the inconclusive ultrasound findings, we proceeded with surgical excision based on history and clinical examination.

Management of cutaneous endometriosis typically involves surgical excision, which has shown favourable outcomes regarding recurrence rates. In our case, a complete excision was performed, followed by suppression using gonadotrophin-releasing hormone analogue in two doses followed by dienogest. However, other studies have mentioned that hormonal treatments are often less effective for spontaneous cases without prior surgical history (9). Hormonal treatment includes the use of gonadotrophin-releasing hormone agonist, danazol and oral contraceptives. The primary mechanism of the hormonal therapy is to decrease the cyclical proliferation of the endometrial tissue (9). Cutaneous endometriosis prognosis is generally good with a minimal chance of recurrence (10) and a very low chance of malignant change (11).

Conclusion

This case underscores the importance of considering spontaneous cutaneous endometriosis in differential diagnoses for patients with unexplained lesions in atypical locations such as the mons pubis. Clinicians should maintain a high index of suspicion for this condition, even in the absence of classic symptoms or surgical history. Enhanced awareness can lead to timely diagnosis and appropriate management, ultimately improving patient outcomes. Future studies should aim to develop improved diagnostic criteria and tools, potentially including non-invasive imaging techniques or biomarkers that can aid in early identification. Research into clinician awareness and education regarding rare manifestations of endometriosis could also be beneficial.

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