

Endometriosis of Groin Mimicking Neoplasm

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ABSTRACT

Endometriosis is principally a disease of women in active reproductive life. Although it is rare, foci of endometrial tissue may be seen in the bowel, the umbilicus, abdominal surgical scars and in the lungs. Inguinal endometriosis is challenging to the clinicians and pathologist and often diagnosed accidentally. We present a case of inguinal endometriosis mimicking neoplasm. A 40 year old woman presented with a swelling in the right inguinal region associated with cyclical pain. In view of presence of atypical cells in fine needle aspiration cytology, metastatic carcinoma was rendered as diagnosis. Histopathological examination revealed endometrial glands and stroma which was further confirmed by immunohistochemistry. Diagnosis of inguinal endometriosis is difficult and often challenging because of unusual site. The clinician must have high index of suspicion with any patient who has cyclical symptoms. A good history and physical examination can guide clinical diagnosis of endometriosis.

KEY WORDS

Endometriosis, Groin mass, Inguinal endometriosis

INTRODUCTION

Endometriosis is the presence of endometrial tissue outside the endometrium and myometrium. Usually both epithelium and stroma are seen but occasionally only one component is present.¹ The disorder is principally a disease of women in active reproductive life, most often in the third and fourth decades, and affects approximately 10% women.² The most common sites include ovaries, rectovaginal pouch and pelvic peritoneum. Rarely foci of endometriosis may be seen in the bowel, the umbilicus, abdominal surgical scars and in the lungs.³ Inguinal endometriosis is rare and often diagnosed accidentally. It is mostly right sided and concomitant with pelvic endometriosis.⁴ Cullen in 1896 described the first case which he referred to as an adenomyoma of the round ligament.⁵ Inguinal Endometriosis can present as painful mass mimicking tumor.⁶ Most commonly, inguinal endometriosis is described in relation to previous abdominal wall or groin incisions.⁷ We report a case of a patient with groin endometriosis mimicking a metastatic carcinoma.

CASE REPORT

A 40 year old female presented to the surgical outpatient with a swelling in the right inguinal region. The swelling was 15 months duration associated with pain and a stretching sensation that increased in intensity at times. On examination, 2x1 cm firm to hard, immobile, irreducible, non-tender nodule in the right groin was noted and a clinical possibility of inguinal lymphadenopathy was considered. Fine Needle Aspiration Cytology (FNAC) was performed and revealed atypical cells arranged in clusters and few dispersed singly. Individual cells are pleomorphic with hyperchromatic nuclei with 1-2 prominent nucleoli and scant cytoplasm with high N: C ratio (fig. 1). Malignancy was suspected and patient was advised for biopsy. CT scan was done which revealed a homogenously enhancing lymph node measuring 18x13 mm in right inguinal region. An ill-defined area of soft tissue density measuring 35x15 mm with surrounding haziness was also noted likely to be metastatic lesion. In view of atypical cells in FNAC, the lump was excised and sent for histopathological examination.

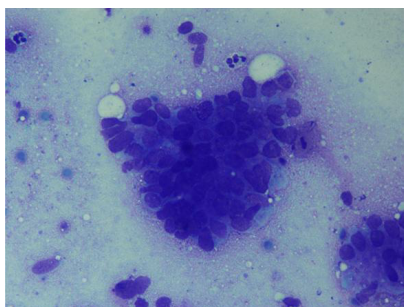


Figure 1. FNAC smear show atypical cells in clusters.

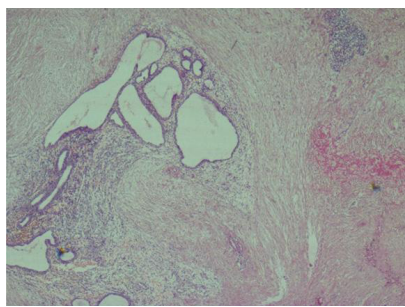


Figure 2a. H&E sections show endometrial glands and stroma, 10X

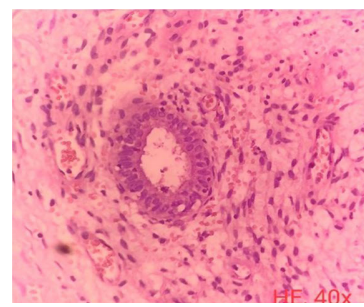


Figure 2b. H&E sections show endometrial gland & stroma, 40X

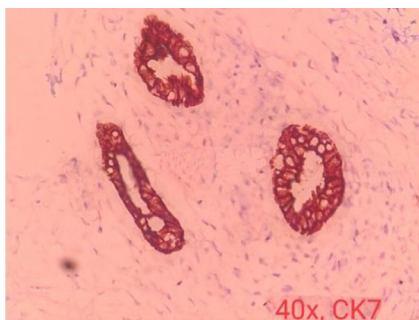


Figure 3a. CK7 positivity in lesional cells

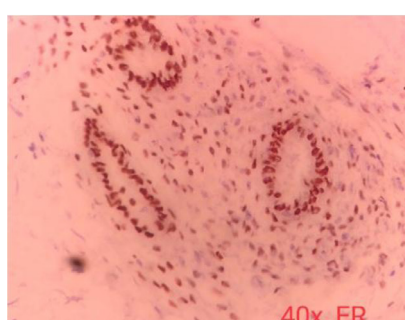


Figure 3b. ER positivity in lesional cells

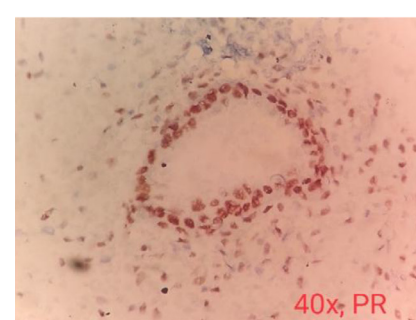


Figure 3c. PR positivity in lesional cells

Grossly there was nodular tissue with smooth surface measuring 3x2x1.5 cm and cut section showed homogenous solid white areas. H&E sections revealed glands of varying caliber lined by benign columnar epithelium surrounded by round to oval stromal cells (fig. 2a and 2b). In this regard we made differential diagnosis of ectopic breast and endometriosis and sent immunohistochemistry for confirmation. Immunohistochemistry showed CK7, ER and PR diffusely positive in lesional cells (fig 3a, 3b and 3c) and CK20, GATA3, P63 were negative. Ki67 index was 2%. In view of histopathological examination and IHC analysis the diagnosis of inguinal endometriosis was considered.

DISCUSSION

Endometriosis is a condition in which foci of endometrial tissue are found beyond the endometrial cavity.³ The etiology of endometriosis has remained mostly unknown. The most widely accepted theory for the pathogenesis of endometriosis is retrograde menstruation through the fallopian tubes into the pelvic cavity.⁸ There are several other theories to explain its pathogenesis such as spread to distant sites via blood and lymphatic channels, metaplasia of coelomic epithelium and direct extension along the round ligament.⁹ Endometriosis occurring in the inguinal region is very uncommon accounting 0.3-0.6% of all cases of endometriosis.¹⁰ The mean age at diagnosis is 31 years. The size of the mass range from 1 to 6 cm in diameter.¹¹ Causes of inguinal mass include lymphadenopathy, hernia, hydroceles, neuroma, abscess, hematoma, lymphoma, lipoma, sarcoma, subcutaneous cysts and other neoplasms.¹² In our case clinician had suspected inguinal lymphadenopathy. Although the typical complaints of patients with pelvic endometriosis include

dysmenorrhea, menstrual irregularities, dyspareunia and infertility, patients with extra pelvic endometriosis present with unusual symptoms and occasionally, a diagnostic dilemma.¹³ Patient often presents with a painful lump in the groin and premenstrual tenderness and/or swelling.¹⁴ A history of previous gynecological procedure or surgical trauma is also contributory.¹⁴ Some patients may have no history of dysmenorrhea, pelvic pain, or dyspareunia as in our patient. However she experienced right inguinal pain during menses. Laparoscopic evaluation of the abdominal cavity is often used to distinguish endometriosis from other conditions causing chronic pelvic pain such as chronic pelvic inflammatory disease, pelvic congestion syndrome and interstitial cystitis.³ Preoperative misdiagnosis is often made due to the rarity of endometriosis in the groin. In the present case it was diagnosed as inguinal lymphadenopathy at first. Aspiration cytology was done and revealed atypical cells. Metastatic carcinoma was given as diagnosis due to presence of atypical cells in the FNAC and biopsy was advised. Radiological evaluation such as USG/CT/MRI aids in preoperative assessment by using fluctuations in tumor size with the menstrual cycle.¹⁵ In our case CT imaging further supported the diagnosis of metastasis. Biopsy was done for confirmatory diagnosis. H&E sections showed glands and stroma for which we made differential diagnoses of ectopic breast and endometriosis which was later confirmed by Immunohistochemistry as endometriosis.

In conclusion, history of pain during menstruation and tenderness along with a lump is important to differentiate this condition from other inguinal pathologies. The clinician must have a high index of suspicion with any patient who has cyclical symptoms involving the GI or urinary tract, and lungs or other sites. The diagnosis is difficult and

challenging because of unusual site and is often confused with other pathological conditions. A good history and

physical examination can guide us towards clinical diagnosis of endometriosis whenever there is any clinical suspicion.

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