



SUBCUTANEOUS ENDOMETRIOSIS: USUAL ENTITY AT AN UNUSUAL SITE

Pathology

Dr Srushti Agrawal Senior Resident, Department Of Pathology, DY Patil School Of Medicine, Navi Mumbai

Dr Surekha Bhalekar

Professor, Department Of Pathology, DY Patil School Of Medicine, Navi Mumbai

Dr Hemant Bhalekar

Director Of Bhalekar Pathology Lab, Khanda Colony, New Panvel West, Navi Mumbai

ABSTRACT

Background: Endometriosis is defined as a chronic, oestrogen- dependent, benign inflammatory disease characterized by growth of endometrial glands and/ or stroma outside the uterine cavity. 25% of women affected with endometriosis are asymptomatic, other may present with symptoms like chronic pelvic or abdominal pain and/ or infertility. Common sites or ectopic locations include primarily the pelvic peritoneum, ovaries and rectovaginal septum. **Case:** We are presenting a case of 30-year-old Indian women with complains of pain in abdomen and a palpable mass in the anterior abdominal wall in right iliac fossa. Computed Tomography (CT) abdomen and pelvis (Plain and contrast) showed large well defined abnormal soft tissue density mass lesion with inhomogeneous enhancement on contrast – Favouring: ? Infective ? Neoplastic etiology. **Result:** Excision was done and tissue was sent for histopathology. Histopathological diagnosis was made as Endometriosis. **Conclusion:** Keeping this case in mind, for patients with subcutaneous mass in anterior abdominal wall and complains of abdominal pain, endometriosis should always be kept as a differential diagnosis. Histopathology stands as a gold standard for the diagnosis as CT (Plain and contrast) is insufficient in the definitive diagnosis of such lesions.

KEYWORDS

Endometriosis, subcutaneous tissue, histopathology.

INTRODUCTION

Endometriosis is classically defined as benign, chronic, oestrogen-dependent inflammatory diseases. This affects approximately 10% of women in reproductive age group and 35-50% of women with pelvic pain and infertility. ⁽¹⁾ The majority cases present with pelvic mass and abdominal pain, while atypical endometriosis of thorax, intestine and abdominal wall have been documented. ⁽²⁾ Various theories have been proposed for explaining the pathogenesis of 1^o endometriosis.

These include –

1. Metaplastic theory.
2. Theory of retrograde menstruation.
3. Extra-uterine stem/ progenitor cell maturation.
4. Benign metastasis.
5. Embryonic rest theory. ⁽³⁾

For 2^o endometriosis, the widely accepted pathogenesis is iatrogenic implantation of endometrial cells post-surgery. ⁽⁴⁾

Here, we report a case of endometriosis with an unusual site of presentation in the subcutaneous tissue of anterior abdominal wall.

CASE REPORT

A 30- year- old female came to the hospital with complains of pain in abdomen. She did not have any previous surgery or surgical/ Caesarean scar. On physical examination, a firm to hard, mass was palpated. The mass was located in right iliac region in the anterior abdominal wall. Skin over the mass was unremarkable and mass was vaguely measuring 5x3 cm in size. CT abdomen and pelvis (plain and contrast) was performed, on which a well-defined abnormal soft tissue mass with inhomogeneous enhancement on contrast was identified Favouring: ? Infective ? Neoplastic etiology.

As the abdominal pain was intolerable to the patient, the surgeon had decided excision of the tissue as a treatment of choice. Tissue was then excised and sent to histopathology department for further processing.

We received multiple, firm to hard, fibro-fatty soft tissue bits altogether measuring 7x4x3 cm. Externally it was congested and cut section showed multiple cysts measuring 0.2-1.2 cm in diameter admixed in fibro-fatty tissue. Cyst were filled with haemorrhagic fluid.

Histopathological examination showed endometrial type of glands along with stroma admixed in fibro-adipose connective tissue. Glands were cystically dilated and filled with secretions while stroma had lymphohagocytic aggregates and pigment laden macrophages within

it. With respect to the findings, a diagnosis of endometriosis was made.

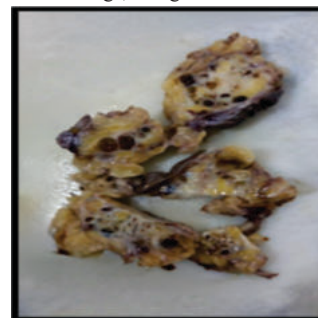


Figure 1: gross Image - Multiple Fibro-fatty Tissue Bits With Cysts Filled With Haemorrhage

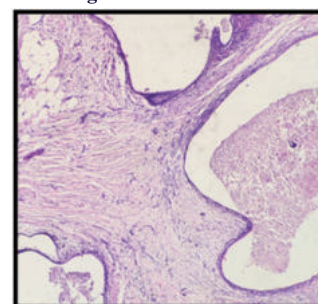


Figure 2: Microscopy - (100x, H&E Slide)- Showing Cystically Dilated Endometrial Glands Within Fibrofatty Tissue.

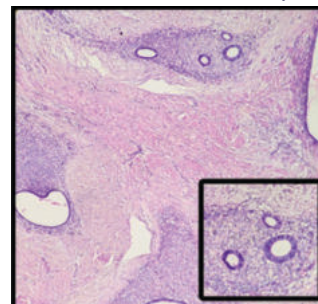


Figure 3: Microscopy - (100x, H&E Slide)- Showing Endometrial

Glands And Stroma Within Fibrofatty Tissue. (inlet is showing 400x View Endometrial Glands And Stroma)**DISCUSSION**

Out of all patients of ectopic endometriosis, cutaneous endometriosis represents 0.5-1.0% of all the cases. Cutaneous endometriosis which presents without prior surgical operative history is called as primary spontaneous cutaneous endometriosis which accounts for less than 30% of all cutaneous endometriosis. 0.4 -4 % of all endometriosis accounts for umbilical endometriosis. ⁽⁴⁾To explain the pathogenesis of endometriosis, several theories have been proposed. Amongst these theories, proposing non-uterine origin of endometriosis, coelomic metaplasia involves the transformation of normal peritoneal tissue / coelomic epithelium to ectopic endometrial tissue. Another theory being, the theory of retrograde menstruation which is evidenced by higher prevalence of the disease in women with uterine septum and cervical stenosis. Recent studies show extra- uterine stem/ progenitor cell originating from bone marrow, that may differentiate into endometriotic tissue. Also, theory of benign metastasis provides insight into the pathogenesis of endometriosis by supporting the idea of ectopic endometrial implant being the result of lymphatic and haematogenous dissemination of endometrial cells. ⁽²⁾

Our patient was in reproductive age group but as there was no history of previous operative procedure, scar endometriosis was ruled out. Considering the age of the patient, the cause for endometriosis can be explained by embryonic rest theory hypothesis, i.e. Mullerian remnants can differentiate into endometrial tissue, which causes symptoms. ⁽⁵⁾

Radiological investigations like CT, magnetic resonance imaging (MRI) and ultra-sonography (USG) are not useful in providing definitive diagnosis of this condition. As a result, endometriosis is confused with haematoma, granuloma or desmoid tumour. ⁽⁵⁾ Hence, FNAC and/or biopsy leads us to the establishment of definitive diagnosis.

The definitive treatment is surgical excision with wide margins, which was the treatment of choice in our case. ⁽⁶⁾ Alternative option for patients who do not wish to undergo surgery is hormonal treatment with gonadotropin releasing hormone agonists or danazol. These agents prevent cyclical proliferation of endometrial tissue.

CONCLUSION

Subcutaneous endometriosis is a rare condition and the diagnosis can be missed out easily. Proper detailed examination with detail history along with radiological investigations helps to figure out the extent of the disease. Although definitive diagnosis is only by histopathology.