CASE REPORT

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Anterior Abdominal Wall Lesion - A Diagnostic Enigma

ABSTRACT

A 35-year-old female came with complaints of pain in the abdomen for 2 months and small swelling in the infraumbilical region increasing in size gradually over the past 2 months. Pain was neither cyclical nor had any aggravating or relieving factors. Conservative management was tried without any relief. Ultrasound guided fine needle aspiration cytology was done which suggested, paucicellular smears with occasional epithelial clusters giving differential diagnosis of Endometriosis or Adenocarcinoma.

Key words: Abdominal wall endometriosis, Caesarean scar endometriosis, Endometriosis

INTRODUCTION

The major differential diagnosis for anterior abdominal wall tumors includes desmoid tumor, hematoma, abscess, neoplasm, scar endometriosis, or injection-related granuloma. Desmoid tumor, also known as aggressive fibromatosis, is one of the most common differential diagnoses. Endometriosis is a condition commonly seen in the pelvic region, but it can also occur at extrapelvic sites, which are rare, thus giving rise to a diagnostic dilemma. Anterior abdominal wall endometriosis (AWE) is one such complex variant of extrapelvic endometriosis, an uncommon aftermath following gynecological operations, the incidence of which is <2%.[1]

CASE REPORT

A 35-year-old female came with complaints of pain in the abdomen for 2 months. Pain was intermittent in nature and increased in intensity over time with no aggravating or relieving factors. Pain was typically over the lower abdomen. She noticed a small swelling over the infraumbilical region just above the scar from the previous cesarean section. A history of a slight increase in the size of the swelling over 2 months was noticed by the patient. She had undergone LSCS by Pfannenstiel incision 10 years ago. She has no history of comorbidities and regular monthly 3/5 moderate flow menstrual cycle.

There is no history of fever or vomiting. There is no history of cyclical pain associated with menses. There are no bowel or bladder complaints.

On examination

Around 3 cm of firm, mobile, lump was felt in the infraumbilical region just above the scar.

- Tenderness is present on palpation of the lump.
- Cough impulse –ve.
- No changes were noted on the overlying skin.

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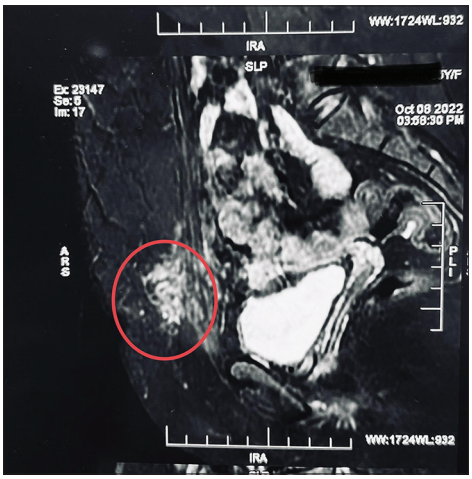
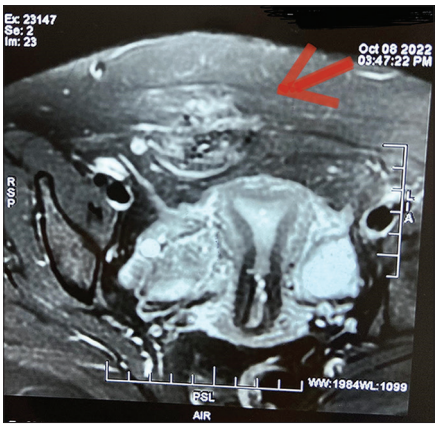
Investigations

Ultrasound-guided fine needle aspiration cytology (FNAC) was done which suggested, paucicellular smears with occasional epithelial clusters giving differential diagnosis of Endometriosis or Adenocarcinoma.

An MRI was done which reported a mass in the anterior abdominal wall abducting the rectus muscle, which again



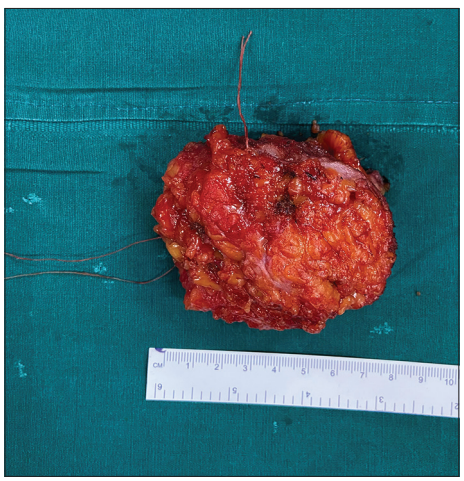


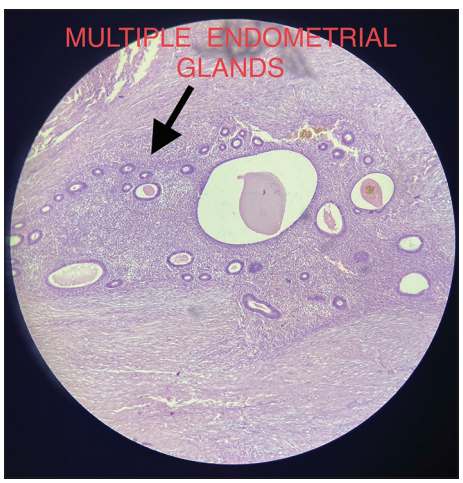
gave a differential diagnosis of Carcinomatous lesion or Endometriosis.

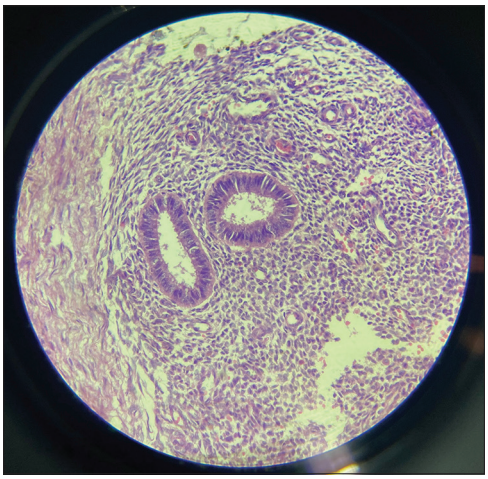
Surgery

Patient underwent a wide local excision of the entire lump.

7.5×7.5×5.5 cm specimen excised and sent for HPE.







Histopathology

Histopathology of the specimen shows endometrial glandular and stromal tissue suggestive of endometriosis in anterior abdominal wall.

There is no TB or malignancy.

DISCUSSION

Endometriosis is the term used to describe the presence of endometrial glandular and stromal tissue outside the uterus. Mostly, it affects women who are actively seeking to procreate.[1,2] The ovaries, the pelvic, the lower gastrointestinal tract, which includes the sigmoid colon, and the urinary system, particularly the bladder, are common locations for endometriosis. Abdominal wall endometrioma represents one of the rarest types of endometriosis. Scar endometriosis is a dynamic disease. During surgery, fragments of endometrial tissue are inserted into the incision, resulting in the formation of endometriotic deposits. The most frequent procedures that can result in this are cesarean sections and hysteresis.

The etiopathogenesis of endometriomas of the abdominal wall has been explained by a number of ideas.[3] AWE is caused by direct inoculation of the endometrial tissue into surgical scars or surrounding tissues during surgery, according to the transport theory. The pathogenic pathway entails estrogen stimulation through estrogen receptors, possible epigenetic modifications at the site of implantation, local growth factor-induced inflammation, and metalloproteinase activation. However, the fundamental mechanisms remain incompletely understood.

The alternative idea is called the metaplastic theory, and it postulates that endometriomas of the abdominal wall may arise from primordial pluripotent mesenchymal cells that have undergone differentiation and metaplasia.

AWE is known to be associated with high parity, increased menstrual flow, and prior hysterectomy or cesarean section. The Esquivel trinity, which includes a history of lower cesarean

section, a palpable tumor, and cyclic discomfort, is almost always used to diagnose AWE.[3] However, in this instance, the traditional finding of cyclical pain was not present, making the diagnosis difficult.

Between 3 and 6 years often pass between the index operation and the start of symptoms. In this instance, it appeared over 10 years later.

Usually, a solid hypoechoic lesion with interior vascularity is shown on Doppler ultrasonography. 92% of people are sensitive to it.[4-6] On contrast enhancement, the precise location, size, and kind of mass are documented, and these details are diagnostic.[7] Compared to CECT and ultrasonography, magnetic resonance imaging (MRI) offers superior contrast resolution.[8] An MRI was performed in this instance because it can identify smaller lesions and, if linked to the endometrial lesion, can also identify hemorrhage. In addition, it aids in the infiltration of deeper structures and the differentiation of muscle from subcutaneous tissue, all of which are helpful in planning the necessary resections during surgery.

Wide local excision was performed in this instance because FNAC carries the risk of needle-track implantation of the endometriotic lesion. Hemostasis-loaded macrophages, stromal cells, and endometrial-like epithelial cells will all be seen in FNAC. Scar endometriosis is very difficult to diagnose with FNAC.[9]

An analysis of the removed mass's histology serves as the primary diagnostic method for verification. A diagnosis can be made using any two of the three traditional features. These consist of hemosiderin-loaded macrophages, endometrial stroma, and endometrial glands. The first course of treatment is surgery. Hormonal therapy provides short-term symptom relief, although relapse is frequent following medication discontinuation.[10] It can be added to surgical treatment for proven pelvic endometriosis.[11] Poor results have been observed with danazol, leuprolide, and progesterone.[12,13] Surgical treatment is preferable which consists of wide local excision and medical management cannot be recommended except in pre-menopausal patients. The indicators of an incomplete resection are the development of seromas at the operative site and recurrent symptoms in the post-operative period.[14,15]

CONCLUSION

Anterior abdominal wall endometrioma is a rare differential diagnosis for anterior abdominal wall lesions, but definitive management and cure are provided by surgery with minimal consequences.

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