

Spontaneous abdominal wall endometriosis diagnosed by fine needle cytology: a case report

Abstract

Endometriosis is presence of tissue histologically similar to endometrium outside of the uterine cavity, most commonly consisting of both endometrial glands and stroma. Spontaneous abdominal wall endometriosis is any ectopic endometrium found superficial to the peritoneum without the presence of any previous scar. We report here a case presented with suprapubic swelling which was associated with cyclical symptoms as well. Ultrasound guided fine needle aspiration done from the swelling reveal cytologic features of endometriosis. Considering the site diagnosis of spontaneous abdominal wall endometriosis was made. The aim of this case report is to remind that some very rare site may be involved in endometriosis and cytology can provide accurate preoperative diagnosis of endometriosis.

Keywords: abdominal wall endometriosis, spontaneous, fine needle cytology

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Introduction

Endometriosis is the presence of endometrial tissue outside the uterus, most commonly consisting of both endometrial glands and stroma.¹ Endometriosis generally involves ovary and pelvic peritoneum but it can also be found in extra gonadal sites like bowel, bladder, lung and rarely abdominal wall.² Though it can involve a variety of extra uterine locations but is less commonly found cutaneously/subcutaneously.³ Most of the abdominal wall endometriosis occurs within surgical scars with only few spontaneous cases.⁴ Spontaneous abdominal wall endometriosis (AWE) is presence of ectopic endometrium found superficial to peritoneum without the existence of any previous scar. The aim of this case report is to remind that some very rare site may be involved in endometriosis.⁴

Case presentation

A 35-year-old female without any previous operative history, presented to the surgery outpatient clinic with the history of suprapubic swelling 1x1cm² which was associated with pain and increase in size of the swelling during menstruation. Diagnosis of endometriosis was made clinically. Ultrasound of the abdomen reveal normal scan. Bilateral ovaries and bowel were normal. Ultrasound guided fine needle aspiration cytology (FNAC) from the swelling reveal cellular smears containing epithelial cells arranged in monolayered sheets having evenly spaced small round nucleus, bland nuclear chromatin, moderate amount of cytoplasm and distinct cell border (Figure 1). Background comprised of variable amount of stromal fragments having spindle cells (Figure 2), lymphocytes, hemosiderin laden macrophages and necrotic cell debris (Figures 3) (Figure 4).

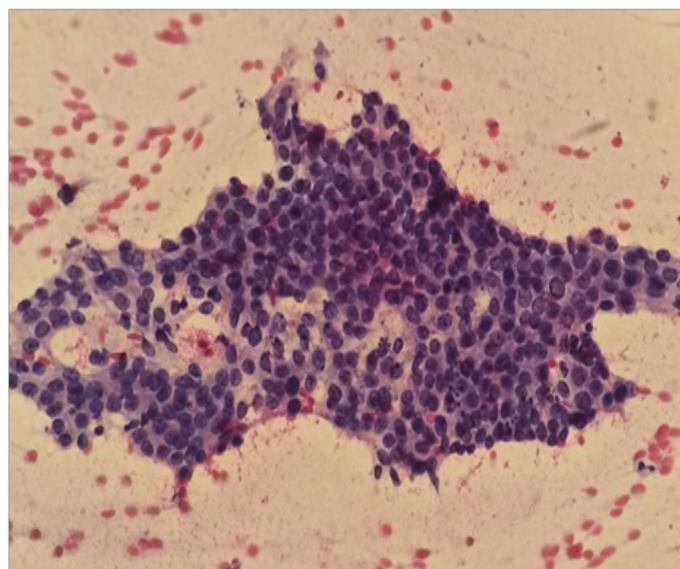


Figure 1 Smear reveal monolayered sheet of epithelial cells having bland nucleus and distinct cell border (PAP 40X).

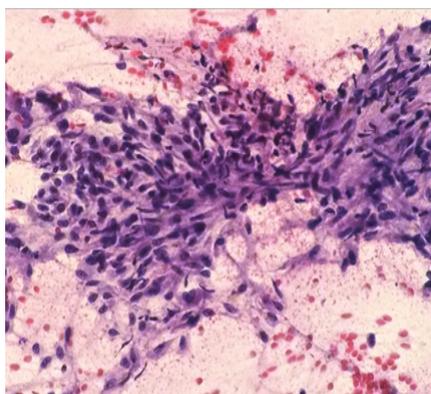


Figure 2 Stromal fragment having spindle cells (PAP 40X).

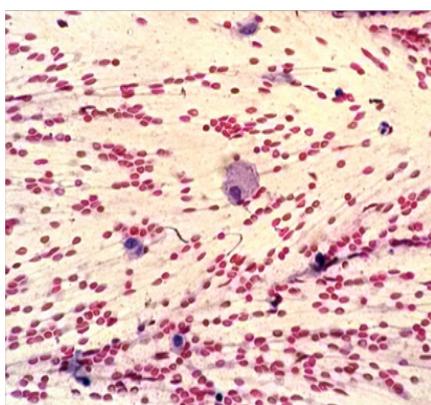


Figure 3 Singly scattered hemosiderin laden macrophages against a hemorrhagic background (PAP 40X).

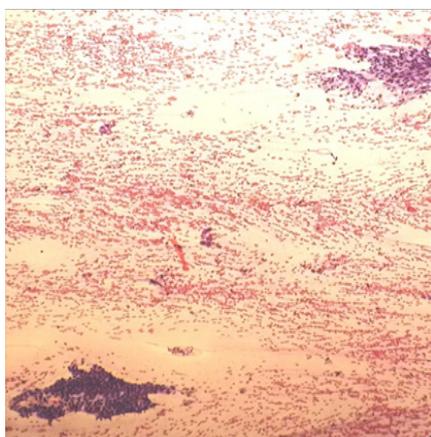


Figure 4 Smear reveals both stromal (arrow) and endometrial epithelial cell (arrow head) arranged in monolayer sheet (PAP 4X).

Discussion

Spontaneous abdominal wall endometriosis is presence of ectopic endometrium found superficial to peritoneum without the existence of any previous scar.⁴ It is a rare entity, accounting for 20% of all abdominal wall endometriosis.⁴ Different pathophysiological theories concerning the origin of endometriosis have been proposed, including the implantation or reflux, direct extension, coelomic metaplasia, induction, and lymphatic and vascular metastasis.³ Lymphatic spread has been suggested for spontaneous endometriosis based on the

demonstration of lymphatics between the pelvis and umbilicus.³ The most common site of spontaneous endometriosis is the umbilicus, followed by the inguinal area and the abdominal wall.⁵ Cutaneous endometriosis could be suspected in women of reproductive age presenting with palpable abdominal bluish nodule, characterized by cyclic pain and swelling.² These findings are similar to our case study. Imaging studies are non-specific; thus, a biopsy is necessary to make a definitive diagnosis. Endometriosis should be considered in the differential diagnosis of abdominal wall lesions even if not associated with a scar of a previous operation.⁶ It may be mistaken clinically for lipoma, dermoid cyst, haemangioma, keloid, hernia, abscess, pyogenic or foreign body granuloma, embryological rests, irreducible hernia, inclusion cyst, metastatic tumors from intraabdominal malignancy and melanoma.³ Local recurrence after adequate surgical excision is rare. Malignant transformation has been described.⁷ Recognizing cutaneous endometriosis is very important for a prompt endometriosis' diagnosis, as endometriosis is a progressive disease, delaying diagnosis and treatment would increase the risk of severe pain, distortion of the pelvic anatomy and sterility.⁸

Conclusion

Spontaneous abdominal wall endometriosis, though a rare entity can be considered in the differential diagnosis of all women of reproductive age group presenting with abdominal wall swelling and cyclic symptoms. Fine needle aspiration cytology can provide a safe, minimally invasive, cost effective and accurate preoperative diagnosis of endometriosis to plan a better surgical approach.

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None.

Conflict of interest

The author declares no conflict of interest.

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