



UMBILICAL ENDOMETRIOSIS: A CASE REPORT

General Surgery

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ABSTRACT

A 34-year-old female having recurrent swelling in the umbilicus with alteration of the size of the swelling during menstrual cycle with increased pain and nausea since 1 year was diagnosed to have an umbilical hernia. Ultrasonography of the abdomen and pelvis revealed a mass-like lesion in the umbilicus measuring 1 x 1 cm with debris in it and an umbilical hernia with omentum. Patient underwent an exploration with hernia repair. The umbilical sac along with the contents sent for histopathology revealed endometrial glands. Postoperative period was uneventful and patient didn't have such symptoms during the subsequent menstrual cycles.

KEYWORDS

Umbilical cord, Endometriosis.

INTRODUCTION:

The term endometriosis was coined by Sampson to characterize ectopic tissue possessing histological architecture and function of the uterine endometrium. The most common sites for endometriosis are ovaries, uterine ligaments, fallopian tubes^[1] Extragonadal sites are more difficult to diagnose due to extreme variability in presentation; the common sites being the rectum, colon and peritoneal surfaces. However ureteral and urinary bladder involvement is also known which could result in cyclical pain and hematuria during menstruation. Pulmonary involvement can manifest as pneumothorax, hemothorax and hemoptysis during menstruation.

Primary Umbilical endometriosis is very rare with an estimated incidence of 0.5-1% of all cases of uterine ectopia.^[2] It is also called Villar's nodule after Villar who first described it in 1886.

Here we present a case of a 34-year-old female who was diagnosed with umbilical endometriosis who presented with swelling and cyclical pain in the umbilicus.

CASE REPORT:

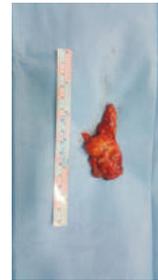
A 34-year-old female presented with swelling over the umbilicus since 1 year. The swelling which was small (about 1x1 cm in dimensions), increased in size on coughing and standing up and disappeared on lying down. The size of the swelling varied during menstrual cycles and was associated with pain.^[3] The patient described the pain as sharp, rated it about 7 on the pain scale and appeared during menses. She also complained of multiple episodes of vomiting. Vomitus was non-blood tinged and contained only food particles. The pain described by the patient was also aggravated by vomiting and relieved on taking medications. There was no history of fever, bowel/bladder disturbances. Patient reported regular menstrual cycles of 5 days in a 30-day cycle. She is G₆P₁L₁ with LSCS 3 years ago. The patient has no known medical problems.



On examination, the patient was alert, oriented and co-operative. She was moderately built and nourished. Her vital signs were as follows – HR – 76/min, BP – 120/70 mm Hg, Temp – 99°F.

Abdominal examination showed a swelling measuring 1x2 cm in the umbilical region. The swelling was non-tender, soft and reducible with a positive cough impulse. There was no discharge from the swelling. The remainder of the exam was normal.

Cardiovascular and Respiratory exam were unremarkable.

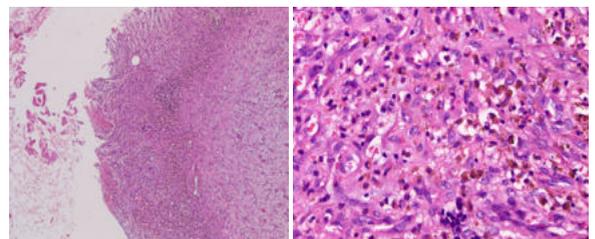


Ultrasound of the abdomen and pelvis revealed a mass measuring 1x1 cm in the umbilicus with some debris.^[4] The scan also showed an umbilical hernia with the omentum lying within the hernia sac.

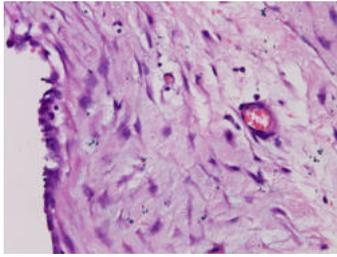
The patient underwent an exploration with hernia repair. The hernia sac was dissected, the contents reduced and the cyst excised and sent for histopathologic examination. After creating a preperitoneal space, a 30x15 cm prolene mesh was inserted and anchored to the fascia.^[5]

The wound was closed in layers and a 14 Fr drain was inserted. The post-operative course was uneventful.

Gross exam showed a cyst measuring 3.25 x 2.5. The outer surface of the cyst appeared smooth, however the inner wall appeared grey brown with many attached blood clots.^[6]



Histopathologic examination revealed that the specimen was a pseudocyst. The cyst wall shows fibro-adipose tissue with marked vascular congestion. Occasional endometrial type glands noted with no accompanying stroma.^[7] Areas of old hemorrhage with inflammatory infiltrate and hemosiderin-laden macrophages present.^[8] Fatty areas are lined by flat mesothelial cells. No granulomas or malignancy seen.



Patient recovered well and did not experience any symptoms during the subsequent menstrual cycles.

DISCUSSION:

There has been great speculation about the pathogenesis of this phenomenon and several theories have been proposed. Latcher has classified these theories into three main categories:^[9] The embryonic rest theory, which explains endometriosis adjoining the pelvic viscera by Wolffian or Mullerian remnants;^[10] the coelomic metaplasia theory, which states that the embryonic coelomic mesothelium dedifferentiates into endometrial tissue under stimulus such as inflammation or trauma; and the migratory pathogenesis theory, which explains the dispersion of endometrial tissue by direct extension, vascular and lymphatic channels, and surgical manipulation. Still others suggest cellular proliferation of endometrial cells from initial extraperitoneal disease along the urachus. In 1927, Sampson first described the implantation or retrograde menstruation theory, which states that during menses, refluxed endometrial cells escape from the fallopian tubes and implant on the surrounding pelvic structures. The real mechanism still remains a mystery.

These patients are usually in the reproductive age group and present commonly with swelling, pain, discharge or cyclical bleeding from the umbilicus.^[11] There may be associated symptoms of coexistent pelvic endometriosis. These lesions are usually bluish-black in colour.^[12]

Differential diagnosis includes metastasis, primary carcinoma, umbilical hernia, congenital malformation of the omphalomesenteric duct or urachus, and foreign bodies such as talc or suture granulomas.^[13]

Umbilical endometriosis provides a diagnostic challenge, given its low incidence. A high degree of suspicion is usually needed to diagnose it clinically. The gold standard method for the staging of endometriosis is laparoscopy, while transvaginal ultrasonography and MRI are also excellent non-invasive staging methods.^[14]

The treatment of umbilical endometriosis consists of medical and surgical approaches. Preoperative medical therapy may be used to provide symptomatic relief and to reduce the size of the surgical defect in cases of large endometriotic masses, although surgical removal with clear margin remains the therapy of choice.^[15]

CONCLUSION:

Umbilical endometriosis is a rare condition and poses a diagnostic dilemma. It should be considered in the differential diagnosis of umbilical lesions. A biopsy should be performed in all cases to eliminate differential diagnoses, chiefly umbilical metastasis. The possibility of a coexisting genital-pelvic endometriosis should be investigated in women with umbilical endometriosis and patients should be questioned for symptoms of progressive dysmenorrhea, dyspareunia or infertility.^[16] A histopathological examination is required for the confirmation of the diagnosis.^[17] Although a preoperative hormone therapy may help in reducing the size of the umbilical lesion,^[18] surgical resection remains the treatment of choice, with an extremely low recurrence rate.

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