

RECTAL BLEEDING DUE TO ENDOMETRIOSIS IN COLONIC MUCOSA: A CASE REPORT

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Abstract

Endometriosis is a common and important clinical problem in women of childbearing age. It is the result of functional endometrium located outside the uterus. The most common location for endometriotic deposits is in the ovaries (Jenkins *et al.*, 1986). Intestinal endometriosis is less common, about 12% of endometriosis patients (Macafee and Greer, 1960). Colorectal involvement results in alterations of bowel habits, such as constipation, diarrhea, tenesmus, dyschezia, and, rarely, rectal bleeding. I present the case of a 44-year-old woman presented with rectal bleeding and anemic symptoms, and was found to have an intraluminal polypoid mass at upper rectum from the computed tomography (CT). The diagnostic workup by colonoscopy was performed and suggested to be rectal cancer. The diagnosis of endometriosis was made only after pathological evaluation of the specimen and confirmed by immunostaining (+CK7, +CD10, and +ER). The intestinal endometriosis is one of differential diagnosis in premenopausal women with symptom of rectal bleeding.

Keywords: Endometriosis, Intestinal endometriosis, Premenopausal

Introduction

Endometriosis is common, chronic, and benign inflammatory disease defined by the presence of endometrial tissue outside the uterine cavity. The disorder is principally a disease of woman in active reproductive life, approximately 5-10% of women (Olive and Schwartz, 1993; Lu and Ory, 1995). The common location of endometriosis is in pelvic cavity such as ovaries, uterine ligaments, rectovaginal septum, pelvic peritoneum, and laparotomy scars. The important clinical conditions are dysmenorrhea (Painful menstruation), pelvic pain, infertility, and other problems.

The most common site of extragenital endometriosis is intestine, about 12% of endometriosis patients (Macafee and Greer, 1960).

The symptoms of intestinal endometriosis are similar to those of irritable bowel syndrome and, sometime, are non specific. The symptoms are deep pelvic pain, constipation, diarrhea, tenesmus, dyschezia, and, rarely, rectal bleeding. Therefore, some cases of endometriosis presenting with rectal bleeding can misdiagnose to be colonic malignancy before received tissue confirmation.

Case presentation:

A 44-year-old woman presented with a history of rectal bleeding for 2 months. She felt having abdominal mass for 2 years earlier with symptom of dysmenorrhea on the first and second days in every month. The patient had 27-day to 28-day menstrual

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cycles and menstrual periods lasting 5 days with feeling dysmenorrhea for 3 years. She went to a hospital with anemic symptoms and found positive for stool occult blood. Then she was referred to Maharat Nakhon Ratchasima hospital. On physical examination showed ovoid-shaped abdomen without tenderness. A contrast-enhanced computed tomography (CT) scan of the abdomen and pelvis showed multiple well-defined enhancing hypodense uterine masses varying in size from 1.1-12.6 cm and an abnormal polypoid mass in rectum measuring about 2.8×1.6×2.2 cm in size (Figure 1 and Figure 2). She underwent exploratory laparotomy for transabdominal hysterectomy and bilateral salpingo-oophorectomy; and colonoscopy for rectal mass biopsy. The histopathological study of uterus showed adenomyosis and histopathological study of rectal mass biopsy showed endometrial tissue and stroma in mucosal and submucosal layer. (Figure 3). The endometrial stroma within the endometriotic foci was highlighted by immunostaining for CD10 (Figure 4) and the endometrial glands was highlighted by immunostaining for CK7 (Figure 5) and ER (Figure 6).

Post-operative complication was not found. During the follow-up visits, the patient's symptom

was a little bloody spot in first visit and not found until the last visit to the report time (about 1 year).

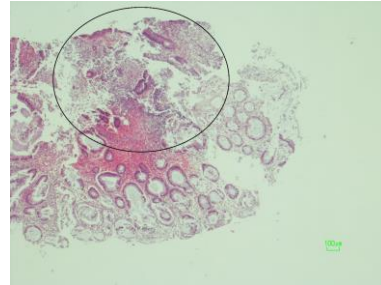


Figure 3. H&E shows atypical cells in submucosal layer (in circle).

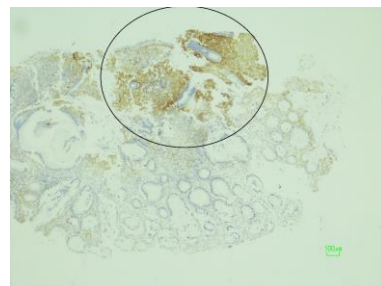


Figure 4. CD10 expression in endometrial stromal cells (in circle area).

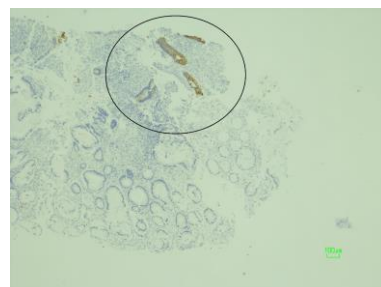


Figure 5. CK7 expression in endometrial glands (in circle area).

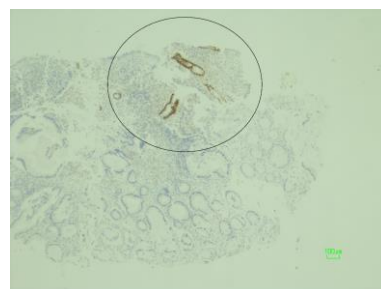


Figure 6. ER expression in endometrial glands (in circle area).



Figure 1. The contrast-enhanced CT of pelvis shows several large uterine leiomyomas with spotty calcifications (black arrows).



Figure 2. The contrast-enhanced CT of pelvis shows several large uterine leiomyomas with spotty calcifications (black arrows).

Discussion

Endometriosis is an important gynecologic disorder affecting women of reproductive age. It is classically defined as the presence of functional endometrial glands and stroma outside the uterine cavity. The etiology of endometriosis is complex and multifactorial, potential theories include: 1. metastatic theory (transplantation of endometrial cells via retrograde menstruation, lymphatic or vascular dissemination, iatrogenic implantation with probable immune/hormonal/inflammatory mediators), 2. metaplastic theory (retroperitoneal deep endometriosis may originate from metaplasia of Mullerian remnants located in the rectovaginal septum), and 3. induction theory (whereby shed endometrium releases substances that induce undifferentiated mesenchyme to form endometriotic tissue). The most widely accepted theory is that endometriosis results from metastatic implantation from retrograde menstruation. The implants are usually located in the pelvis, but they can be found elsewhere in the body. The common locations for endometriotic deposits are (1) ovaries, (2) uterine ligaments, (3) rectovaginal septum, (4) pelvic peritoneum, (5) laparotomy scars, and (6) rarely in the umbilicus, vagina, vulva, or appendix (Lora and Edty, 2015).

Intestinal involvement by endometriosis occurs in about 12% of endometriosis patients (Macafee and Greer, 1960) and is the most commonly affected extragenital area (Bergquist, 1993; Veeraswamy *et al.*, 2010). The most common location is the rectosigmoid colon (71%), followed by the appendix (19%), terminal ileum (6.7%), cecum (5.5%) and the transverse colon (0.5%) (Cameron *et al.*, 1995; Yantiss *et al.*, 2001; Wills *et al.*, 2009; Prystowsky *et al.*, 2010; Veeraswamy *et al.*, 2010). The metastatic theory of endometriosis is most widely accepted and provides a plausible explanation for the majority of case of endometriosis. Intestine endometriosis begins by implantation on the serosa followed by invasion of the muscularis propria, but the mucosa is rarely involved. The clinical presentation is usually asymptomatic, but gastrointestinal bleeding, nausea, vomiting, cramp-like abdominal pain, painful defecation, diarrhoea, constipation, recto-vaginal colonic mass, intussusception, bowel obstructions, and intestinal perforation can be seen. Sometime, the symptoms are non specific. However, they can vary with the menstrual cycle, worsening in the days before and during a period.

At pathologic analysis, it can vary from microscopic foci to large, grossly visible endometriotic cysts. Microscopic histology of

endometriosis is finding of both endometrial gland and endometrial stroma scattering and insinuating within the layers that vessel passing. Occasionally, this feature may confuse to the metastatic adenocarcinoma. Therefore, immunostaining i.e. CD10, CK7, CK20, CDX-2, and ER can be used to definite diagnosis.

In this case, the patient received the investigation with colonoscopy by surgeon with suggested of rectal cancer in the first impression because of it is common cause of rectal bleeding and showing intraluminal polypoid rectal mass on the CT scan. However, on microscopic analysis, it shows the features of endometriosis and proving with immunostaining (positive for CK7, CD10, and ER).

Finally, the patient underwent the treatment with electrocautery without unnecessary exploratory laparotomy.

In long term follow up (about 1 year), the patient did not develop recurrence of rectal bleeding.

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