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Endometriosis with Intestinal Implants Mimicking Rectal Cancer.

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Abstract:

The case presented involves a thirty-eight year old woman with endometriosis, who was diagnosed by laparoscopic visualization and histopathological confirmation. After one year, and while the patient was on infertility work-up, she referred to a gastroenterologist from the gynecologic clinic because of palpable bulging and nodules discovered in a pelvic exam. Colonic involvement was detected by colonoscopy and endosonography. A pathology report of sections of the colonic mucosa revealed deciduosis (endometriosis). This incidence of this type of endometriosis is quite rare, and involves extensive involvement of colonic mucosa. We recommend careful pelvic examination and rectovaginal palpation in endometriosis patients even if they appear asymptomatic for gastrointestinal complications.

Keywords: Endometriosis, Follow-up, Intestinal implants

Introduction:

Endometriosis is defined as the presence of endometrial tissue outside the uterus, causing a range of diseases including infertility, pelvic pain, dysmenorrhea and constipation.[1] The natural history of endometriosis is uncertain. In addition, its etiology remains unknown, its clinical presentation is inconsistent, its diagnosis is difficult and treatment is poorly standardized. Endometriosis causes significant morbidity due to pelvic pain and infertility among 15-25% of women in their reproductive age. The benign disease causes peritoneal inflammation, fibrosis, adhesions and ovarian cysts, but displays features of malignancy such as neo-vascularization, local invasion and distant metastasis. Mechanical, hormonal, immunological, environmental and genetic factors have been implicated in its etiology, but provide inconclusive explanations. Once the endometrial cells are implanted at the ectopic sites, they are sustained by hormones and angiogenic factors.[2] Endometriosis is a relatively common condition characterized by implantation and proliferation of endometrial glands outside the uterus affecting 8% to 15% of women. Intestinal involvement is common, and is reported in 12% to 37% of individuals with the disease. The sites most often affected are the sigmoid colon and rectum (85%), while small bowel involvement is seen less frequently (7%) and is usually confined to the distal ileum. The cecum (3.6%) and appendix (3%) are the sites least affected.[3] Pelvic endometriosis, a common disease of the female genital tract, may also affect the bowel, and the rectosigmoid colon in particular. Involvement of the small intestine occurs very infrequently.[4]

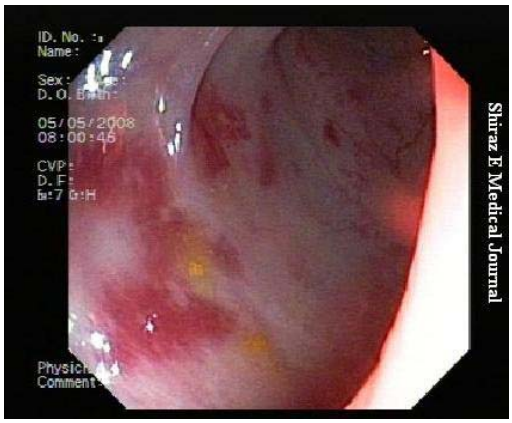
In this manuscript a case of endometriosis with colon infiltrating endometriosis is reported.

Case Presentation:

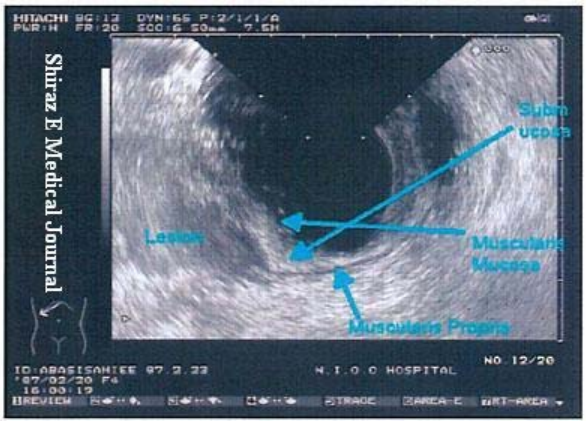
The patient is a thirty-eight year old woman with endometriosis that was diagnosed by laparoscopic visualization and histopathologic confirmation. One year after diagnosis, while the patient was on infertility work-up, she was referred to a gastroenterologist from the gynecologic clinic because of palpable bulging and nodules in her pelvic exam. On presentation, she did not have symptoms like constipation, diarrhea, and localized tenderness, intermittent abdominal pain due to partial intestinal obstruction or hematochezia. Colonic involvement was detected by colonoscopy. The colonoscopy report revealed a sigmoid, a descending part, a splenic part, a transverse part and a hepatic part. In addition, the report revealed that the ascending cecum and ileo-cecal valves were normal. There was an infiltrative lesion just above the anal verge. Multiple biopsies were taken and multiple erosions were seen in the rectum.

The impression was rectal mass/ endometriosis. Colonoscopy views are shown in pictures 1 and 2. An endosonogram (EUS) was performed along with a biopsy. In the transrectal sonography report, there was a mixed echoic lesion at about 5 centimeters from the anal verge in the anterior wall of the uterus, with a diameter of 3 X 2.5 centimeters at the

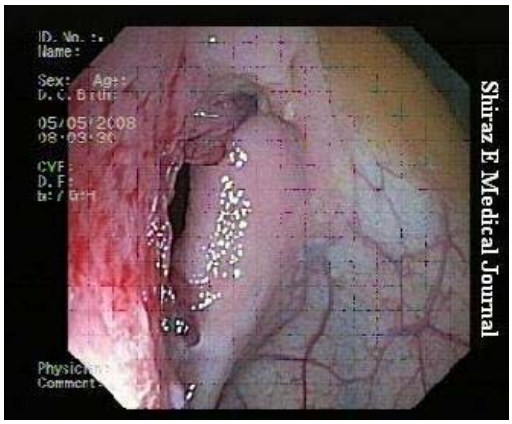
largest point. Muscularis mucosa (MM) and muscularis propria (MP) were involved. The lesion was at 4 centimeters from the sphincters. The impression was a rectal mass with adhesion to the uterus. Results from the endosonogram are shown in pictures 3 and 4. Results from the pathology report are as follows: sections of colonic mucosa revealed superficial mucosal ulceration; lamina propria was infiltrated by bland looking epithelial-like cells with central nuclei and fine chromatine that was likely decidualized cells; the crypts were intact or compressed, and diagnosis of rectal mucosa by endoscopic biopsy was deciduosis (endometriosis). Pathology slides are shown in pictures 5, 6, and 7. The patient was introduced for surgery was consulted on alternatives to hormone therapy. With the permission of the patient, the local Ethics Committee at the hospital granted us approval to report on her case.



Picture 1, Colonoscopy view of the lesion.

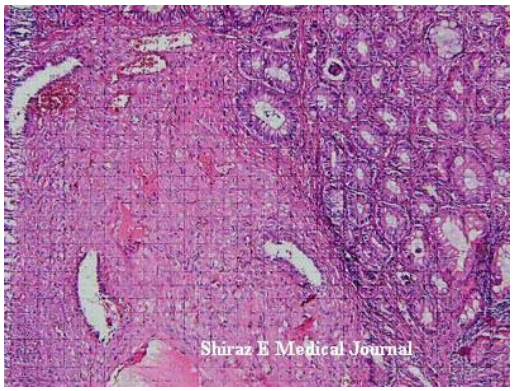


Picture 3, Endosonography view of the lesion.

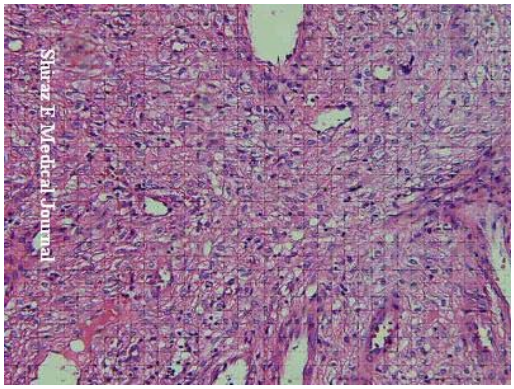


Picture 2, Colonoscopy view of the lesion.

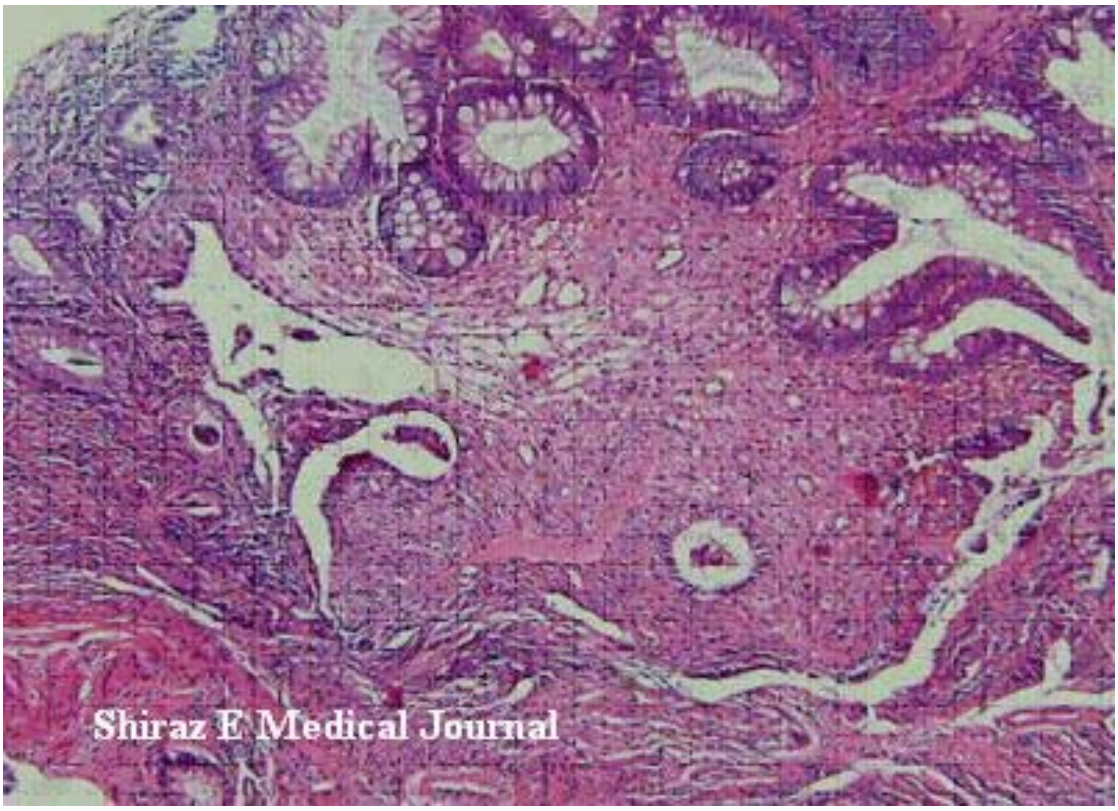
Picture 4, Endosonography view of the lesion.



Picture 5, Pathology of the lesion.



Picture 6, Pathology of the lesion.



Picture 7, Pathology of the lesion.

Discussion:

Endometriosis is a common gynecological disorder, with a multifactorial etiology. Genetics, environmental factors and the immune system all play a role in predisposing patients to the development of endometriosis. A series of recent publications described the identification of endometrial stem/progenitor cells.[5]

Our results confirmed that double-contrast barium enema (DCBE) has a good sensitivity and a low specificity for the diagnosis of intestinal deeply infiltrating endometriosis (DIE). Transrectal endoscopic ultrasonography (Tr EUS) proved to have a higher sensitivity and specificity with elevated negative predictive value (NPV) and positive predictive value (PPV). A significant association of the DCBE and the Tr EUS in the diagnosis

of intestinal DIE, and a moderate agreement of the methods was also observed.[6] Cross-sectional radiologic imaging, which allows for the evaluation of the entire bowel wall and the surrounding tissues, plays an important role in the localization and characterization of abnormalities. However, some superficial submucosal lesions that were initially detected by computed tomography of the colon or barium enema may be better characterized with colonoscopy. Modalities such as transrectal ultrasonography (TRUS) and magnetic resonance imaging may be useful for the identification and characterization of some abnormalities.[7]

A previous study evaluated whether a transrectal ultrasound-guided biopsy can verify suspected neoplasia in the small pelvis histology.(8?) All 12 patients in the study had clinical signs of an advanced tumor, and in all cases biopsies utilizing computerized tomography (CT scan) had been unsuccessful despite a documented lesion being visualized on a CT scan or by magnetic resonance imaging. Six cases of lymph node metastases of a transitional cell carcinoma were detected. One case of extended node metastasis in prostate cancer, one paravesical manifestation of recurrent cervical cancer, one metastasis of a paravesically infiltrating colon cancer and two cases of paravesical metastases of gastric cancer were also diagnosed. In one case, extragenital endometriosis could also be diagnosed. TRUS-guided biopsies are a reliable diagnostic tool for verification of the neoplastic origin of suspected masses in the small pelvis.[8]

Most women with endometrial implants on intestinal structures have no symptoms. It is rare to see endometrial implants on the colonic mucosa except when there is hematochezia. Thus, colonoscopy is often normal except for areas of extrinsic compression or strictures with intact mucosa.[9] Gastrointestinal symptoms are not necessarily associated with gynecological symptoms. Rarely, hematochezia occurs when endometrial implants penetrate to the mucosa or when severe colonic fibrosis results in ischemia.[10] Differential diagnoses of intestinal endometriosis include: inflammatory bowel disorders with stricture; diverticulitis; tuberculosis; neoplastic disorders and colon ischemia. Imaging findings are not pathognomonic for endometriosis and mucosal abnormalities that permit positive biopsies are rare.[11] Despite involvement of colonic layers and implants on mucosa, our patient had no gastrointestinal complaints. She was followed-up for possible symptomatic disease, inflammation, nerve impingement, obstruction and underlying carcinoma. She was introduced for surgery consultation in addition to hormone therapy.

Conclusion:

The patient presented with endometriosis with the involvement of colonic mucosa, without gastrointestinal symptoms or hematochezia. We recommend careful pelvic examination and rectovaginal palpation before and after menstruation as part of follow-up in endometriosis cases.

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