CASE REPORT
Intestinal endometriosis diagnosed through colonoscopy-obtained specimens

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RESUMO | A endometriose é uma doença comum e pode afetar entre 4 e 7% das mulheres na idade reprodutiva. Entre 3 e 4% apresentarão endometriose no trato digestivo. Relatamos o caso de uma paciente branca, com 30 anos de idade, que se apresentou com dor abdominal e sangramento retal. Foi diagnosticada endometriose do sigmoíde, após o exame histopatológico das biopsias obtidas durante a colonoscopia. A resposta clínica à hormonioterapia foi satisfatória.

Palavras chave: Endometriose; Cérvix sigmoíde; Dor abdominal; Hemorragia gastrointestinal

SUMMARY | Endometriosis is common and can affect between 4 and 17% of women in their reproductive years. 3 to 4% will have endometriosis loci in the digestive tract. We report a 30-year-old white woman who presented with abdominal pain and rectal bleeding, and who had a diagnosis of sigmoid endometriosis after histopathology of colonoscopy-obtained specimens. She responded satisfactorily to hormonal therapy.

Key Words: Endometriosis; Colon Sigmoid; Abdominal Pain; Gastrointestinal Hemorrhage

INTRODUCTION
Endometriosis is the ectopic growth and function of endometrial tissue. Two mechanisms are thought to be responsible for its pathophysiology: a) reflux of endometrial tissue during menstruation, and b) the growth of celomic tissue in the myometrium of neighboring organs.

Intestinal endometriosis generally affects the sigmoid and rectum, being less frequent in the cecum and right colon. It rarely affects the whole colon circumference, having then the potential to cause obstruction or perforation. Its differential diagnosis frequently involves cancer and inflammatory bowel disease.

We report a case of sigmoid endometriosis in a young woman who presented with abdominal pain and rectal bleeding. The correct diagnosis, made with histopathology of colonoscopy-obtained biopsies, led to successful hormonal therapy.

CASE REPORT
A 30-year-old white female, born and living in São Roque de Minas, MG, Brazil. She reported chronic pain in the lower abdomen and pelvis for the past 8 years, having undergone extensive work-up and received a number of drugs (analgesics, antibiotics, antidepressants), to no avail. One year before presentation she had noticed the onset of rectal bleeding during her periods, a fact her attending gynecologist did not give attention to. She was referred to psychotherapy instead. Two months before presentation the gynecologist ordered a colonoscopy, which revealed a 5cm-long
lesion spreading laterally, in the rectum-sigmoid junction. The lesion occupied half of the viscus lumen (Figure 1).

The lesion was friable, slightly hardened, and with an irregular surface, making it difficult to advance the endoscope. Notwithstanding, the exam proceeded with visualization up to the terminal ileum, with no other abnormalities being noticed.

The biopsied sample was fixed in 10% formalin and processed to standard. 5µm sections were obtained and stained with hematoxylin-eosin. Immunohistochemistry for cytokeratin 7 (clone OV-TL 12/30, Dako), estrogen receptor (clone 6F11, Novoceastral), and progesterone receptor (clone PgR636, Dako) was also performed. Histopathology showed clusters of cells with pink cytoplasm and oval nuclei, resembling endometrial decidua, intermingled with columnar glandular epithelium both in the lamina propria and submucosa (Figure 2).

**FIGURE 2 | Endometrial decidua-resembling stromal cells and columnar epithelium endometrial-type in the colonic mucosa**

Contrary to what happens with the colonic epithelium, on immunohistochemistry, the glandular epithelium reacted to cytokeratin 7 (Figure 3). The glandular structures and the decidua-like stroma also evidently expressed the progesterone receptor (Figure 4).

Reactivity to 6F11 antibody was of low intensity and focal. There was no malignancy and the diagnosis was colonic endometriosis.

There was significant pain relief with Gestoden / ethinyl Estradiol plus Mefenamic acid.

**FIGURE 1 | Lesion at colonoscopy**

**DISCUSSION**

Endometriosis is common and may afflict women ranging 4 to 17% in their reproductive years and about 3 to 34% will have endometriosis foci in the digestive tract. The most common sites are the sigmoid and rectum, responsible for 70 to 93% of all cases of intestinal endometriosis. The widest accepted pathophysiology is the reflux of endometrial tissue backward through the fallopian tubes into the peritoneal cavity. Embryonic remnants of endometrial tissue is also an accepted hypothesis. Classic symptoms are dysmenorrhea, dyspareunia, and dyschezia, besides infertility. Approximately 40% of the patients have cyclic and intermittent symptoms, not necessarily related to the menstrual cycle.

Diagnosis of colo-rectal endometriosis is difficult as it is a lesion that will hardly reach the colonic mucosa. Work-up may include barium enema, abdominal CT, and diagnostic video laparoscopy. Differential diagnosis should include colonic neoplastic disorders, inflammatory bowel disease, ischemic colitis, and cancer of the colon and rectum. Proposed treatments include hormonal suppression, symptoms relievers, or surgery when complications such as obstruction or perforation supervene. Publications on the topic generally focus on complications, diagnosis generally being made during or after surgery. In 80% of the cases of intestinal endometriosis, there is pelvic endometriosis too. Few cases of isolated intestinal endometriosis have been published. Porpora, et al (2006), reported a case of endometriosis diagnosed in an endoscopically resected colonic polyp and treated with hormones. Roger et al (2005) published the case of a 50-year-old woman who presented with chronic pain in the right lower half of the abdomen, which led to intestinal occlusion. She underwent surgery and the surgical sample (ileo-cecal resection) showed ileal endometriosis.

Our patient did not undergo laparoscopy for identification of possible pelvic endometriosis foci. She has been clinically followed up once her response to hormones was favorable. In the case reported by Porpora (2006), the lesion disappeared after hormonal treatment alone. Six months afterwards only a flat clear lesion remained, and the histopathology failed to show any residual endometriosis. In spite of significant symptom control, our patient is scheduled to undergo control colonoscopy in six months, with biopsies to check if the disease has disappeared. There are literature reports associating cancer with intestinal endometriosis.

Colonic endometriosis should be considered in women with chronic pelvic pain and intestinal bleeding, even if not cyclical with the menstrual periods.

**FIGURE 2 | Endometrial decidua-resembling stromal cells and columnar epithelium endometrial-type in the colonic mucosa**

**FIGURE 3 | Cytokeratin 7 reactive glandular epithelium and a negative colonic crypt**

**FIGURE 4 | Progesterone receptor expression**
Caso Clínico: Intestinal endometriosis

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Bibliography