It's a bird! It's a plane! No, it is bowel endometriosis!

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BACKGROUND

Endometriosis is estimated to affect approximately 10-15% of women of reproductive age and is most frequently associated with chronic pelvic pain and infertility, though symptoms of intermenstrual bleeding, dysmenorrhea, dyspareunia, dyschezia, and dysuria can also be experienced (Agarwal 2019).

Bowel endometriosis is the most affected extragenital location, present among an estimated 12 to 37% of women with known endometriosis with 90% found in the rectum or sigmoid colon (figure 1). Symptoms of bowel endometriosis may include alterations in bowel habits including constipation, diarrhea, dyschezia, tenesmus, and rectal bleeding (Habib 2020).

CASE DESCRIPTION

In this case, we discuss a 50-year-old female with a history of ongoing menorrhagia thought to be from fibroids despite uterine artery embolization with multiple comorbid conditions including obesity, migraines, and depression. She was referred by her PCP in 2017 for first colon cancer screening (average risk). She was not seen in GI clinic prior to colonoscopy.

Colonoscopy findings notable for an approximately 2 cm region of polypoid appearing tissue, flat with central retraction observed at the distal rectal fold (image 1). The majority of the tissue was noted to lift with saline but the central portion had mild submucosal retraction. The tissue was resected with endoscopic mucosal resection technique (image 2). It was unclear if the tissue was fibrosis versus neoplastic disease. Pathology showed colonic mucosa with endometriosis. CD10 immunostain highlighted stromal cells. Estrogen receptor immunostain stained both stromal and epithelial component (image 3). PAX-8 immunostain was negative.

As a result of her endoscopic findings, she was diagnosed with endometriosis. She was trialed on oral contraceptives which did not improve her menorrhagia. She was seen in GI clinic for follow-up in 2022 and stated that her symptoms had resolved post menopause.

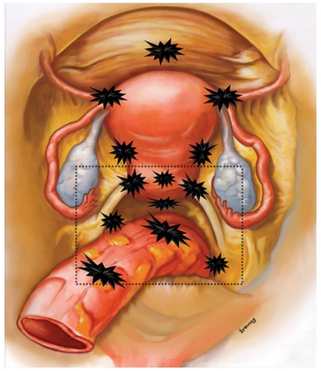

Figure 1: Illustration of pelvic endometriosis

Chamié, Luciana P., Ribeiro, Duarte et al. *Atypical Sites of Deeply Infiltrative Endometriosis: Clinical Characteristics and Imaging Findings.* RadioGraphics 2018 38:1, 309-328

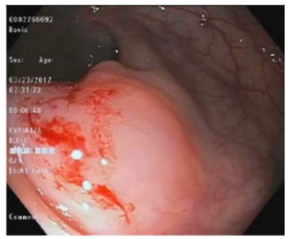

Image 1: 2 cm polypoid tissue in distal rectal fold

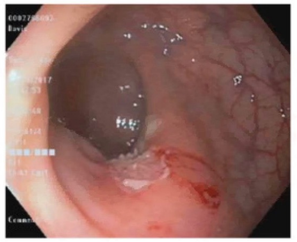

Image 2: Endoscopic mucosal resection of lesion

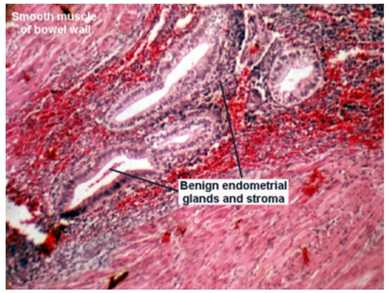

Image 3: colonic bowel endometriosis histology

http://medsci.indiana.edu/c602web/602/c602web/repro/slide104.htm
Indiana University School of Medicine, 1998.

DISCUSSION

We use this case to highlight bowel endometriosis and discuss the importance of including this underdiagnosed disease process in the differential diagnosis among women of reproductive age presenting to gastroenterology clinics. Symptoms of bowel endometriosis can mimic a multitude of other gastrointestinal disease processes such as inflammatory bowel disease (IBD) (Chiaffarino 2020), irritable bowel syndrome (IBS) (Saidi 2020), rectal tumor, diverticular disease, or adhesions. Due to symptomatic overlap between bowel endometriosis and other GI disorders, it is often misdiagnosed leading to unnecessary workup and treatments.

Any pelvic symptoms that appear cyclic in nature should raise the index of suspicion and patients should be referred to gynecology for transvaginal ultrasound, which has high sensitivity and specificity. If ultrasound is suspicious for bowel endometriosis, further work-up including barium enema and potentially magnetic resonance imaging should be undertaken to assess the severity and extent of disease (Wolthuis 2014).

Our case is atypical in that colonoscopy is not sensitive in the diagnosis of bowel endometriosis as lesions are typically extrinsic to the bowel. Should medical therapy be initially pursued among women who are not seeking to conceive over surgical resection, colonoscopy should be undertaken to rule out malignant tumors prior to starting medical therapy (Vercellini 2021).

KEY TAKEAWAYS

- Endometriosis affects 10-15% of women of reproductive age.
- Bowel endometriosis is the most common extragenital manifestation.
- Can mimic: IBS, IBD, rectal tumor, diverticular disease, or adhesions.
- Diagnosis: if high index of suspicion, refer to gynecology for consideration of transvaginal US as initial work-up.
- If plan for medical therapy in diagnosed bowel endometriosis, colonoscopy is recommended to rule out malignant lesions prior to initiation.

REFERENCES

- Agarwal, Sanjay K., Chapron, Charles et al. Clinical diagnosis of endometriosis: a call to action. *American Journal of Obstetrics and Gynecology.* Elsevier. April 2019
- Habib N, Centini G, Lazzeri L, Amoruso N, El Khoury L, Zupi E, Afors K. Bowel Endometriosis: Current Perspectives on Diagnosis and Treatment. *Int J Womens Health*. 2020;12:35-47
- Chiaffarino, Francesca, et al. Endometriosis and inflammatory bowel disease: A systematic review of the literature. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, vol. 252, 2020, Pages 246-251.
- Saidi, Khadija et al. "A systematic review and meta-analysis of the associations between endometriosis and irritable bowel syndrome." *E European Journal of Obstetrics & Gynecology and Reproductive Biology,* vol. 246 (2020): 99-105.
- Wolthuis, Albert M et al. Bowel endometriosis: colorectal surgeon's perspective in a multidisciplinary surgical team. *World Journal of Gastroenterology* vol. 20,42 (2014): 15616-23.
- Vercellini, Paolo et al. "Advances in the medical management of bowel endometriosis." *Best practice & research. Clinical obstetrics & gynecology* vol. 71 (2021): 78-99.

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