



## Case report

## Rare cause of painless lower gastrointestinal bleeding: A case report

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## ABSTRACT

**Introduction and importance:** Endometriosis is a complex disease in which an abnormal uterine lining-like estrogen-dependent cells settle outside the uterine cavity. Gastrointestinal tract is the commonly affected region in extragenital endometriosis.

**Case presentation:** A 44-year-old female patient suffering from intermittent hematochezia for the past three months was presented with no medical history or any other symptoms correlating with current complaints. Clinical examination showed the patient in good condition with soft abdomen without evidence of tenderness or palpable mass or any sign of haemorrhoids or fissures. Initial abdominal sonography revealed a 20 × 25 mm hypoechoic change in caecal region. Colonoscopic biopsies and histopathological examination revealed only colon mucosa with mucosal oedema and an unspecific inflammatory reactive regenerative polypoid with no evidence of tumor tissue adenoma. Intermittent hematochezia of the patient got worse in the following months without any other concurrent symptom. Laparoscopically assisted ileocecal resection with a sutured side-to-side ileoascendostomy was then performed. The patient was kept on enhanced recovery program and was discharged on the fourth post-operative day with analgesics.

**Clinical discussion:** Patients who present with diagnostic challenges or fails to respond to initial treatments for alternative gastrointestinal diagnoses (e.g., IBS), should be analyzed for endometriosis especially in patients with a history or risk factors including nulliparity, early menarche, haematocolpos, retrograde menstruation or even positive family history.

**Conclusion:** Endometriosis must be considered as a gastrointestinal pathology as much as gynecological one, and the gastrointestinal surgeons and physicians should be aware of its symptoms or presentation.

## 1. Introduction

Endometriosis is a complex disease in which an abnormal uterine lining-like estrogen-dependent cells settle outside the uterine cavity (cavum uteri) [1]. The gastrointestinal tract is the most affected region in extragenital endometriosis. It occurs in approximately 37% of the patients with endometriosis [2]. The occurrence of deep wall-invasive endometriosis is around 1–2% [3]. Pain remains the main symptom of endometriosis [4]. Other symptoms such as dyspareunia and bleeding may arise during menstruation mostly. However, in endometriosis the cyclic pain is not pathognomonic and occurs with irritable bowel syndrome and inflammatory bowel disease, which may get worse during menstruation [5]. Endoscopically obtained biopsies usually do not reveal enough tissue for a clear pathological diagnosis [6]. In the present report, we discussed an unusual case in which a deep penetrating endometriosis in the right colon manifested itself mainly in form of a lower gastrointestinal bleeding without other concomitant symptoms.

This case report has been reported in line with the SCARE Criteria [7].

## 2. Presentation of case

A 44-year-old female patient without any significant previous illnesses, has been suffering from intermittent hematochezia for the past three months. In her medical history there were no other symptoms that correlate with the current complaints. There was no recent weight loss or change in the bowel habit of the patient. She has two kids through normal vaginal delivery. She did not undergo any previous operations. The clinical examination showed the patient in good general condition with a soft abdomen without evidence of tenderness or palpable mass. The digital rectal examination did not reveal any sign of haemorrhoids or fissures. The laboratory chemical examination did not show any abnormal results with hemoglobin 14.5 g/dl.

The initial abdominal sonography revealed a 20 × 25 mm hypoechoic change in the caecal region with no signs of liver, pancreas,

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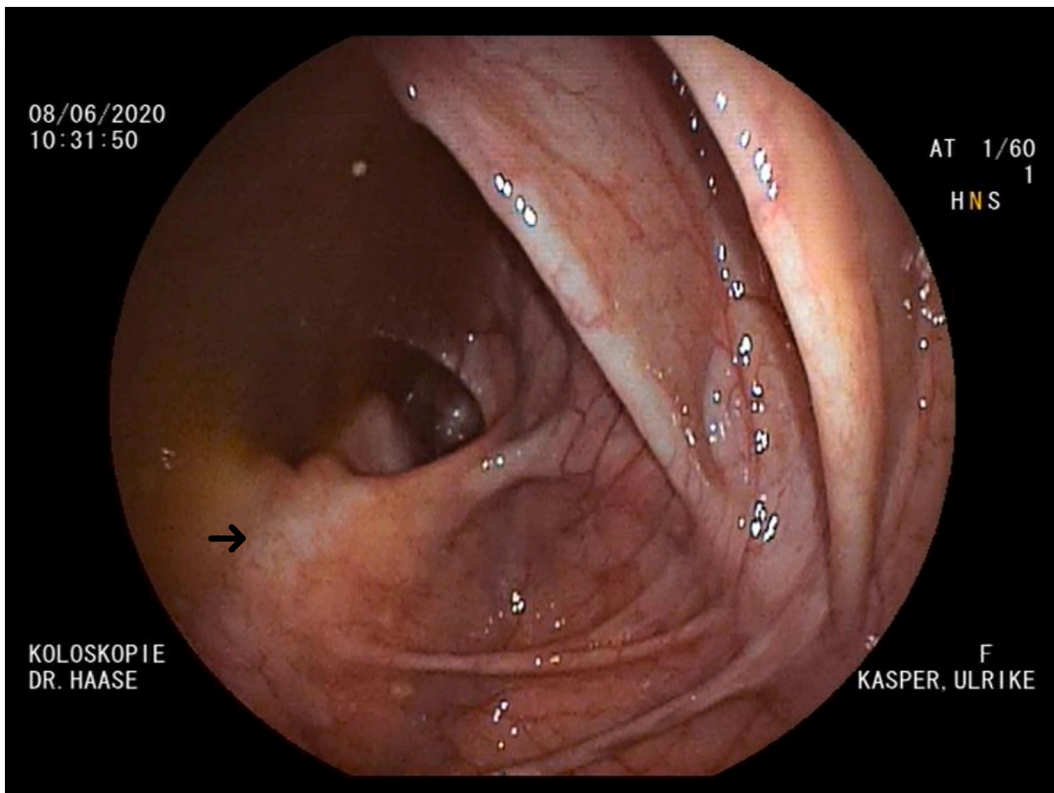


Fig. 1. Colonoscopy image showing unspecified wall changes at cecal point, root of appendix (arrow).

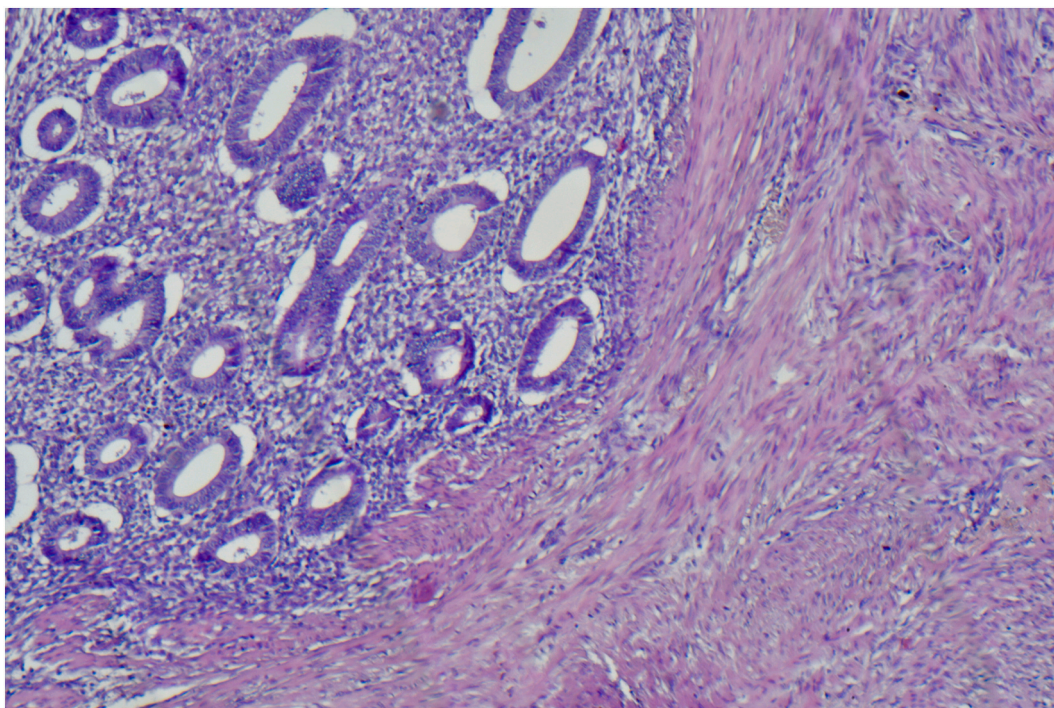
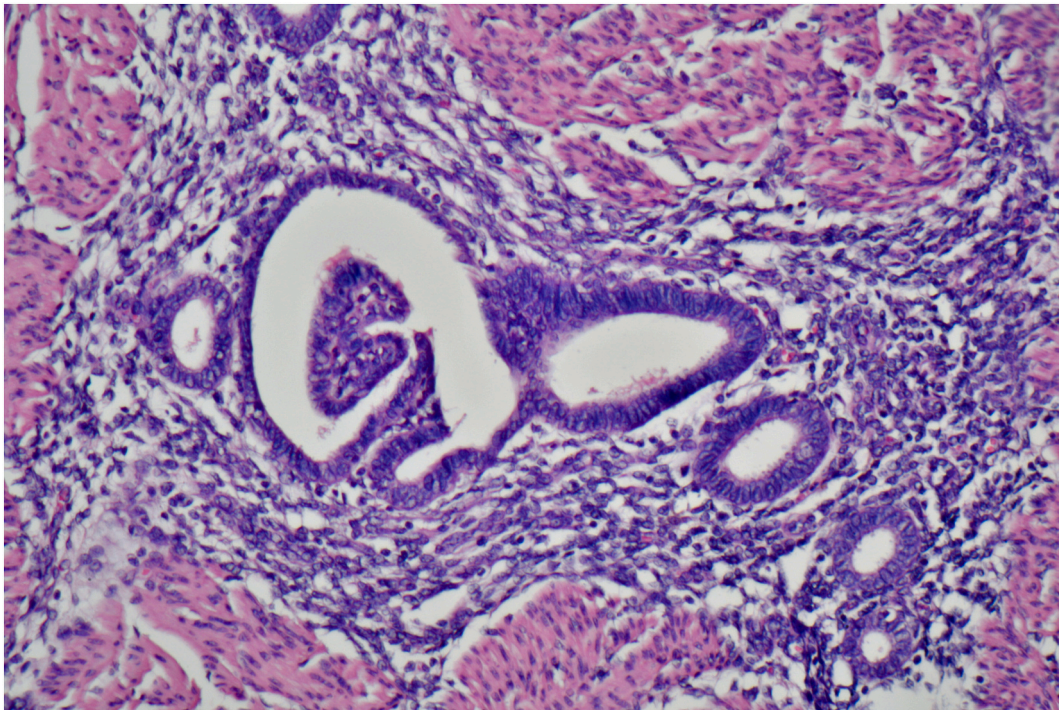


Fig. 2. Intestinal lumen and colon mucosa are shown in the right. Endometrial foci are shown in the left side on the wall of colon.

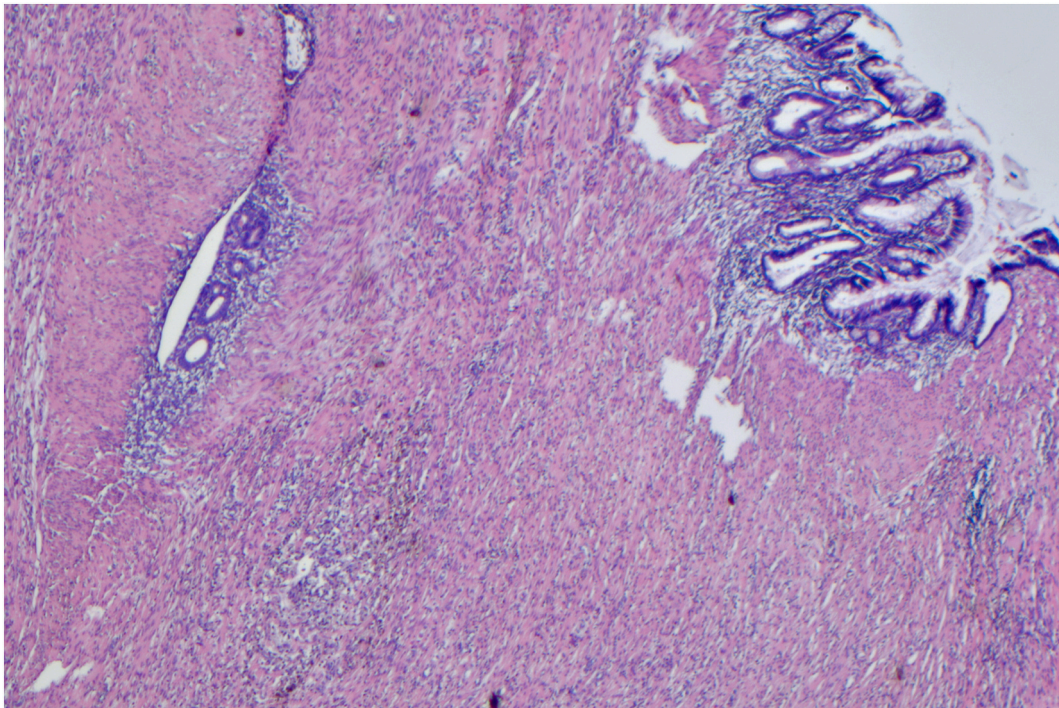
kidney mass or free fluids. The gastroenterologist requested a colonoscopy to find the cause and exclude colon neoplasm. A plum-sized mucous membrane distortion at the cecal pole was discovered which did not resemble a malignant tumor. There were no signs of polyps or bleeding lesions until the terminal ileum. The colonoscopic biopsies

were taken and histopathological examination revealed only a colon mucosa with mucosal oedema and an unspecific inflammatory reactive regenerative polypoid with no evidence of tumor tissue or evidence of an adenoma. With until then unclear situation and to exclude a concurrent tumor pelvic MRI test was carried out. This also showed no evidence of





**Fig. 3.** Intestinal lumen and colon mucosa are shown in the right. Endometrial foci are shown in the left side on the wall of colon.



**Fig. 4.** Small parts of intestinal lumen with colon mucosa are shown in the top right of image. Endometriosis is on the left in the wall of colon.

an extraluminal mass or pathologically enlarged lymph nodes. A small cyst in the area of uterine neck was described as a secondary finding. The patient was advised about her current situation, and she was discharged with scheduled follow up visits.

The condition of the patient did not improve, and the intermittent hematochezia got worse in the following months. She stated that she did not notice any other concurrent symptom. A follow up colonoscopy also revealed an unchanged result compared to the previous examination

(Fig. 1). Once again, the case was discussed with the patient. In view of all the findings and the exclusion of an existing malignancy as well as on the patient's request, we decided in favor of a laparoscopically assisted ileocecal resection with a sutured side-to-side ileoscendostomy. The endoscopic exploration revealed that the ileocecal part was covered with omentum which was adherent to the abdominal wall with no evidence of peritoneal, liver, intestinal or colon deposits. The procedure was unproblematic and went as planned. The postoperative course was

normal. The patient was transferred to the normal ward and was kept on the enhanced recovery program. She was deemed fit and thus was discharged on the fourth post-operative day with analgesics. She was doing well at the 6 months follow up. The histological work-up revealed a deep penetrating and mucosa reaching tumor-shaped area with endometrially differentiated glands without evidence of malignancy in the area of cecum i.e., intestinal endometriosis (Figs. 2–4).

### 3. Discussion

The lower gastrointestinal bleeding is one of the common but major cause of morbidity and mortality in the medical community. It is characterized by the bleeding from lesion distal to ligament of Treitz, including the large and small bowels. Around 20% cases of lower gastrointestinal bleeding are acute. These acute cases frequently lead to hospital admission with invasive diagnostic assessments resulting in use of considerable medical resources [8]. In most of the cases of lower gastrointestinal bleeding, the bleeding stop spontaneously and have favorable outcomes. The all-cause in-hospital mortality rate in lower gastrointestinal is low with frequency of 3.9%. Comorbid illness, intestinal ischemia and advanced age are the biggest predictors of mortality [9].

On the basis of pathophysiology including inflammatory, traumatic, neoplastic, vascular, and iatrogenic acute lower gastrointestinal bleeding are grouped into several categories. Some of the common causes of lower gastrointestinal bleeding is angiodysplasia or angiectasia, diverticular disease, colitis including ulcerative colitis and Crohn's disease, neoplasms including colorectal cancer, benign anorectal lesions such as haemorrhoids, rectal ulcers and anal fissures [10]. As demonstrated in our case, endometriosis is found to be the rare cause of a lower gastrointestinal bleeding. Other symptoms such as dyspareunia and bleeding may occur during menstruation. However, cyclic pain is not pathognomonic for endometriosis and occurs with irritable bowel syndrome and inflammatory bowel disease which may get worse during menstruation [5]. Our present case report is different in which the patient is presented with mainly painless periodic lower gastrointestinal bleeding without any history of gynecological problems. The repeated colonoscopy within months did not reveal any cause for the recurrent bleeding.

The diagnosis of endometriosis can be a challenging task for even experienced general practitioners, general surgeons and gastroenterologists who may get to deal with patient with unspecific symptoms. Around one third of confirmed or suspected women suffering from endometriosis reports one or other gastrointestinal symptoms despite assured intestinal involvement [11]. Any delay in the endometriosis diagnosis may lead to significant difficulty for the patient. Furthermore, patients with endometriosis reported increased incidence of irritable bowel syndrome (IBS) as compared to healthy individuals, and therefore treatment by gastroenterologist may result in improved symptoms [12]. Extragenital endometriosis are most commonly found in the gastrointestinal tract (rectum, sigmoid colon ileum, cecum and appendix), resulting in approximately 4–37% of patients with endometriosis [2,13]. Deep wall-invading endometriosis rarely occurs with 1–2% of prevalence [3]. Also, as majority patients suffering from intestinal endometriosis reports only mild symptoms, severe complications such as perforation, bowel obstruction, and gastrointestinal tract bleeding may occur [14]. Diagnosis of intestinal endometriosis in bowel wall (involving submucosa muscularis propria, and/or serosa) is generally simple in resection specimens. The presence of hemosiderin deposition, endometrial stroma, and endometrial glands is referred as 'diagnostic triad' and is present in most of the cases. If the endometriosis involves intestinal mucosa, it may lead to diagnostic hurdles, particularly in endoscopic biopsies [15]. In our case, the endoscopic biopsies did not provide a clear explanation of the colonoscopy findings. After multiple conversation regarding the situation and on patient's request the operation was performed. The histology revealed a unique situation in which

there was a deep penetration of the endometrial tissue reaching the mucosa of the cecum. The surgical exploration often remains the gold standard for the diagnosis of endometriosis. Although it may be insufficient for the histology in incidents where pelvic extension of the disease is inactive or has gone into convalescence. Thus, definitive diagnosis is attained only by histological proof of endometriotic tissue of the resected bowel [15].

### 4. Conclusion

Endometriosis must be considered in patients presented with diagnostic challenge or if they fail to respond to preliminary treatments for other gastrointestinal diagnoses such as IBS. It should be especially considered in patients with history or risk factors such as early nulliparity, menarche, retrograde menstruation, haematocolpos or even with positive family history. Moreover, endometriosis should be deemed as gastrointestinal pathology as much as a gynecological one, and surgeons and physicians ought to be aware of its presentation.

### CRedit authorship contribution statement

Khalid Alyahyawi designed the concept, analyzed and interpreted the findings, wrote and reviewed the final paper.

### Declaration of competing interest

The author declares no conflict of interest.

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### Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

### Research registration

Not applicable.

### Guarantor

Khalid Alyahyawi

### Provenance and peer review

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### Ethical approval

Ethical approval is not required.

### References

- [1] S.E. Bulun, B.D. Yilmaz, C. Sison, K. Miyazaki, L. Bernardi, S. Liu, et al., Endometriosis, *Endocr. Rev.* 40 (4) (2019) 1048–1079, <https://doi.org/10.1210/er.2018-00242>.
- [2] C. Nezhath, A. Li, R. Falik, D. Copeland, G. Razavi, A. Shakib, et al., Bowel endometriosis: diagnosis and management, *Am. J. Obstet. Gynecol* 218 (6) (2018) 49–562, <https://doi.org/10.1016/j.ajog.2017.09.023>.



- [3] P.R. Koninckx, A. Ussia, L. Adamyan, A. Wattiez, J. Donnez, Deep endometriosis: definition, diagnosis, and treatment, *Fertil. Steril.* 98 (3) (2012) 564–571, <https://doi.org/10.1016/j.fertnstert.2012.07.1061>.
- [4] M. Morotti, K. Vincent, J. Brawn, K.T. Zondervan, C.M. Becker, Peripheral changes in endometriosis-associated pain, *Hum. Reprod. Update* 20 (5) (2014) 717–736, <https://doi.org/10.1093/humupd/dmu021>.
- [5] M.M. Heitkemper, K.C. Cain, M.E. Jarrett, R.L. Burr, V. Hertig, E.F. Bond, Symptoms across the menstrual cycle in women with irritable bowel syndrome, *Am. J. Gastroenterol.* 98 (2003) 420–430, <https://doi.org/10.1111/j.1572-0241.2003.07233.x>.
- [6] R.E. Scully, E.J. Mark, W.F. McNeely, S.H. Ebeling, S.M. Ellender, Case records of the Massachusetts General Hospital (case 13–2000), *N. Engl. J. Med.* 342 (2000) 1272–1278, <https://doi.org/10.1186/1471-230X-3-18>.
- [7] for the SCARE Group, R.A. Agha, T. Franchi, C. Sohrabi, G. Mathew, the SCARE 2020 guideline: updating consensus Surgical CAse REport (SCARE) guidelines, *Int. J. Surg.* 84 (2020) 226–230.
- [8] G.F. Longstreth, Epidemiology and outcome of patients hospitalized with acute lower gastrointestinal hemorrhage: a population-based study, *Am. J. Gastroenterol.* 92 (1997) 419–424.
- [9] L.L. Strate, J.Z. Ayanian, G. Kotler, et al., Risk factors for mortality in lower intestinal bleeding, *Clin. Gastroenterol. Hepatol.* 6 (2008) 1004–1010, <https://doi.org/10.1016/j.cgh.2008.03.021>.
- [10] E.W. Lee, J.M. Laberge, Differential diagnosis of gastrointestinal bleeding, *Tech. Vasc. Interv. Radiol.* 7 (2004) 112–122, <https://doi.org/10.1053/j.tvir.2004.12.001>.
- [11] C.A. Winkel, Evaluation and management of women with endometriosis, *Obstet. Gynecol.* 102 (2003) 397–408, [https://doi.org/10.1016/s0029-7844\(03\)00474-5](https://doi.org/10.1016/s0029-7844(03)00474-5).
- [12] H.E. Seaman, K.D. Ballard, J.T. Wright, et al., Endometriosis and its coexistence with irritable bowel syndrome and pelvic inflammatory disease: findings from a national case-control study—part 2, *BJOG* 115 (2008) 1392–1396, <https://doi.org/10.1111/j.1471-0528.2008.01879.x>.
- [13] V. Remorgida, S. Ferrero, E. Fulcheri, et al., Bowel endometriosis: presentation, diagnosis, and treatment, *Obstet. Gynecol. Surv.* 62 (2007) 461–470, <https://doi.org/10.1097/01.ogx.0000268688.55653.5c>.
- [14] V. Kanthimathinathan, E. Elakkary, W. Bleibel, N. Kuwajerwala, S. Conjeevaram, F. Tootla, Endometrioma of the large bowel, *Dig. Dis. Sci.* 52 (2007) 767–769, <https://doi.org/10.5217/ir.2018.00129>.
- [15] M. Jinushi, A. Arakawa, T. Matsumoto, et al., Histopathologic analysis of intestinal endometriosis after laparoscopic low anterior resection, *J. Minim. Invasive Gynecol.* 18 (2011) 48–53, <https://doi.org/10.1016/j.jmig.2010.08.696>.