

Abstract

Small bowel tumors are detected in approximately 10% of patients with small bowel endoscopies for obscure or overt mid-intestinal bleeding. Small bowel tumors may be of malignant or benign etiology. Malignant etiologies include adenocarcinoma, neuroendocrine tumors, or lymphoma, whereas benign lesions are typically lipomas, inflammatory polyps, or adenomas. Within the group of nonneoplastic lesions inflammatory polyps are most frequent. Significant bleeding and bowel obstruction due to intussusception might occur, and surgical or endoscopic treatment has been reported for symptomatic patients. A case is demonstrated with an inflammatory fibroid polyp detected by capsule endoscopy and confirmed by balloon enteroscopy. This article is part of an expert video encyclopedia.

Keywords

Balloon enteroscopy; Capsule endoscopy; Endoscopy; Enteroscopy; Inflammatory bowel disease; Inflammatory fibroid polyp; Small bowel; Video.

Video Related to this Article

Video available to view or download at doi:10.1016/S2212-0971(13)70102-X

Materials

- Capsule endoscope: PillCam™ SB2; Given Imaging–EMEA, Hamburg, Germany.
- Double balloon enteroscopy (working channel: 2.2 mm and working length: 2300 mm): DBE EN-450P 5/20; Fujifilm, Willich, Germany.
- Biopsy forceps: Biopsiezange, Aisch, Germany.

Background and Endoscopic Procedures

Inflammatory polyps are nonneoplastic, proliferating lesions of the gastrointestinal tract. Most often, inflammatory polyps are located in the stomach, but they may occur in any part of the gastrointestinal tract. Inflammatory polyps are the most frequent nonneoplastic lesion of the small bowel, accounting for less than 10% of polypoid small bowel lesions. Ileal inflammatory polyps are fibroid polyps that are characterized by fibrous tissue with infiltration by inflammatory cells, particularly eosinophil granulocytes. The pathogenesis of inflammatory polyps is unknown, but it is believed that abnormal inflammatory response is associated with the onset process, and eosinophilic enteritis or chronic inflammatory bowel disease might be associated.

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In the present case, a 75-year-old male patient was referred to the hospital for hematochezia. Esophagogastroduodenoscopy and ileocolonoscopy did not reveal a bleeding source, but capsule endoscopy suggested active bleeding of the distal third of the small bowel. Balloon enteroscopy was performed and a large pedunculated polyp was detected approximately 60 cm proximal to Bauhin's valve within a small bowel segment of approximately 40-cm length, which showed granulation of the mucosa and ulcerations. Biopsies were taken from the lesion and ink marking was injected at the oral site of the lesion. Proximal from this altered small bowel segment the mucosa was normal. Massive hemorrhage 14 days later necessitated emergency segmental resection of the diseased small bowel segment. Histopathological examination revealed an inflammatory fibroid polyp within an ulcerated small bowel segment. Follow-up of the patient was uneventful.

Key Learning Points/Tips and Tricks

- Inflammatory fibroid polyps are a potential source of mid-intestinal bleeding and demonstrate characteristic features on endoscopy.

Complications and Risk Factors

- Complications of large inflammatory small bowel polyps other than bleeding might be bowel obstruction or intussusceptions.
- There are case reports on endoscopic resections of inflammatory fibroid polyps, but surgical resection of the diseased bowel segment is the standard of care in symptomatic cases.

Scripted Voiceover

<i>Time (min:sec)</i>	<i>Voiceover text</i>
0:03	A 75-year-old male patient was referred for hematochezia. Esophago-gastro-duodenoscopy and ileo-colonoscopy did not reveal a bleeding source and capsule endoscopy was performed.
0:22	The capsule shows small ulcers within enlarged small bowel villi at the distal third of the small bowel.
0:36	Intestinal content encumbered visualization of the small bowel mucosa. Increasing impurity might be a predictor of a functional stenosis in the distal small bowel.
0:50	Here the video is suggestive of some bleeding within the distal third of the small bowel. A polypoid mass is vaguely visualized.
1:10	In a next step balloon enteroscopy is performed and a large pedunculated polyp is detected approximately 60 cm proximal to Bauhin's valve. A small bowel segment of about 40 cm length shows granulation of the mucosa and ulcerations.

1:38	Biopsies are taken from the lesion and sent for histopathological examination.
2:12	Moreover, biopsies are taken from the adjacent mucosal alterations.
2:41	Passage alongside the pedunculated and ulcerated polyp is achieved with the enteroscope.
3:20	The proximal margin of the altered segment is marked with ink injection. Massive hemorrhage 14 days later necessitated emergency segmental resection of the diseased small bowel segment. Histopathological examination revealed an inflammatory fibroid polyp within an ulcerated small bowel segment. Follow-up of the patient was uneventful.

Further Reading

- Cobrin, G. M.; Pittman, R. H.; Lewis, B. S. Increased Diagnostic Yield of Small Bowel Tumors with Capsule Endoscopy. *Cancer* **2006**, *107*, 22–27.
- Miyata, T.; Yamamoto, H.; Kita, H.; *et al.* A Case of Inflammatory Fibroid Polyp Causing Small-Bowel Intussusception in which Retrograde Double-Balloon Enteroscopy was Useful for the Preoperative Diagnosis. *Endoscopy* **2004**, *36*, 344–347.