

Unidentified Cause of Anemia: Capsule Endoscopy Finding Outside of the Small Bowel



JG Albert and N Lubomierski, Johann Wolfgang Goethe-University Hospital, Frankfurt/Main, Germany

© 2013 Elsevier GmbH. Open access under CC BY-NC-ND license.

Received 13 March 2012; Revision submitted 13 March 2012; Accepted 1 April 2012

Abstract

Small bowel endoscopy is indicated for patients with an unidentified bleeding site in esophagogastroduodenoscopy and ileocolonoscopy and symptoms of intestinal blood loss or unexplained anemia. In approximately two-thirds of these cases, capsule endoscopy (CE) detects a lesion within the small bowel that explains the patient's symptoms. In few cases, though, lesions outside of the small bowel might be revealed by CE. Therefore, attention to all intestines that are visualized by CE might be necessary not to overlook bleeding sites that had not been discovered by prior flexible endoscopy.

Here the case of a 71-year-old male patient with unexplained anemia is presented by the authors. Small-bowel CE revealed minor bleeding from a neoplastic mass in the cecum. The final diagnosis of an adenocarcinoma of the ascending colon was established after the patient underwent a right hemicolectomy. This article is part of an expert video encyclopedia.

Keywords

Capsule endoscopy; Colonoscopy; Colorectal cancer; Endoscopy; Lymphangiectasia; Lymphectasia; Small bowel; Video.

Video Related to this Article

Video available to view or download at doi:10.1016/S2212-0971(13)70187-0

Technique

- Capsule endoscopy.
- Colonoscopy.

Materials

- Capsule endoscope: PillCam™ SB2, Given Imaging EMEA, Hamburg, Germany.

Background and Endoscopic Procedure

Esophagogastroduodenoscopy (EGD) and ileocolonoscopy detects the bleeding site in approximately 80–90% of patients with signs of intestinal blood loss or unexplained anemia. Either capsule endoscopy (CE) or balloon enteroscopy is performed in case of normal findings in upper and lower flexible endoscopy in these patients.

The authors present the case of a 71-year-old male patient who presented to their out-patient clinic for unexplained anemia with a hemoglobin drop from 12.7 mg/dl to 9.3 mg/dl within 4 months. There had been no clinical signs of intestinal blood loss, and fecal occult blood testing was reported negative in three consecutive tests. EGD and ileo-colonoscopy had not resulted in any findings at the referring doctor's examination.

This article is part of an expert video encyclopedia. Click here for the full [Table of Contents](#).

CE was done to search for a lesion at the small bowel, but normal mucosa of the small bowel was visualized. Despite previous intensive cleansing of the colon with use of lavage, a minor bleeding from a neoplastic mass in the cecum was revealed. Biopsies were taken at subsequent colonoscopy and an adenocarcinoma of the cecum was confirmed. Right hemicolectomy was performed and final histopathology established a pT2N0(0/27)R0cM0, G2 adenocarcinoma of the ascending colon.

Key Learning Points/Tips and Tricks

- Attention to all intestines visualized outside of the small bowel is desired in small-bowel CE.
- CE might detect colon cancer in the cecum despite preceding negative colonoscopy in case that bowel cleansing is sufficient.

Scripted Voiceover

Time (m:s)	Voiceover text
0:00	Capsule endoscopy was performed for unexplained anemia in a 71 year old male patient. Preceding esophagogastroduodenoscopy and ileo-colonoscopy did not detect any significant finding.
0:05	Entering the duodenum, the capsule passes through a normal small bowel.
0:26	Focal lymphectasia is identified in the middle of the small bowel. This is a nonsignificant finding without any potential to cause bleeding.

- 0:47 The cecum is entered by the capsule endoscope. Visualization of the colon mucosa is suboptimal as there was no adequate preparation regimen applied for investigation of the colon.
- 1:00 Nevertheless, a minor bleeding is doubtlessly identified shortly after pass of Bauhin's valve. A neoplastic mass seems the origin of the bleeding.
- 1:33 Colonoscopy was repeated and revealed an excavating lesion in the cecum, with histopathology confirming adenocarcinoma of the colon.
-

Further Reading

- Albert, J. G.; Schulbe, R.; Hahn, L.; *et al.* Impact of Capsule Endoscopy on Outcome in Mid-Intestinal Bleeding: A Multicentre Cohort Study in 285 Patients. *Eur. J. Gastroenterol. Hepatol.* **2008**, *20*, 971–977.
- Riccioni, M. E.; Urgesi, R.; Spada, C.; *et al.* Unexplained Iron Deficiency Anaemia: Is it Worthwhile to Perform Capsule Endoscopy? *Dig. Liver Dis.* **2010**, *42*, 560–566.