

Case report

Jejunal adenocarcinoma presenting as acute hematochezia

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SUMMARY

A man with episodic hematochezia was admitted to our hospital. Endoscopy of the upper and lower gastrointestinal tract did not reveal any possible source of bleeding. Wireless capsule endoscopy showed a bleeding polypoid mass in the jejunum. The patient underwent surgery and a small adenocarcinoma was resected. The carcinoma did not penetrate the muscularis externa. The case underscores the emerging role of wireless capsule endoscopy in the diagnosis of bleeding lesions in the small bowel.

Keywords: small bowel adenocarcinoma, wireless capsule endoscopy, diagnosis, therapy.

CASE DETAILS

A 67-year-old man was admitted to the hospital because of episodic hematochezia, after receiving aspirin two days before. He denied fever, chills, family history of gastrointestinal disorders or neoplasms, smoking and alcohol. Physical examination was unremarkable.

Laboratory data, on admission, were significant for hemoglobin 8.5 g/dl (normal, 12-16 g/dl) and serum urea nitrogen (BUN) 60mg/dl (normal, 0-50 mg/dl). Next day, due to continuing bleeding (hemoglobin 8 g/dl), the patient received three units of blood transfusion. Detailed laboratory examinations (blood tests) were normal.

Esophagogastroduodenoscopy and colonoscopy, performed on emergent basis, showed flat superficial erosions, surrounded by erythematous mucosa, in the antrum

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of the stomach, just proximal to the pylorus. Amount of bleeding was not observable in the stomach or in the duodenum. During colonoscopy diverticuli were revealed in the left colon. Computer tomography, performed in the abdomen, was normal. Capsule endoscopy was done, to rule out possible sources of bleeding from the small bowel, which showed a bleeding polypoid mass in the proximal part of the jejunum (Figure A).

Following the preoperative diagnostic workup the patient underwent surgery. There was extensive mesenteric lymphadenopathy and a small tumor was detected (Figure B) and resected, 30-40 cm distal to the ligament of Treitz.

The microscopic histological examination revealed a small adenocarcinoma, (D = 3 cm) of medium to large sized glands with moderate cellular pleomorphism and abundant mitotic figures. The carcinoma is associated with desmoplastic and inflammatory reaction and invaded the layers of the intestine up to the 2/3 of the muscularis externa (Figure C), without penetrating it and with no lymph node metastases. These findings are consistent with an adenocarcinoma of small bowel, stage I (T2N0M0).

At 24 months postoperative follow-up, patient continued to do well, with no further episodes of hematochezia, abdominal discomfort, or weight loss.

DISCUSSION

The diagnosis of small bowel tumors is often difficult due to the rarity of these lesions and the nonspecific and variable nature of the presenting symptoms and signs. Thus delay in diagnosis is common, which may result in the discovery of disease at a late stage, with a poor treatment outcome. Small bowel malignancies may be associated with several heritable conditions that affect the gastrointestinal (GI) tract. Up to 25% of affected patients have synchronous cancers involving the colon, endometrium, breast, prostate and others sites. When the different subtypes of malignancy are considered together, 65% present

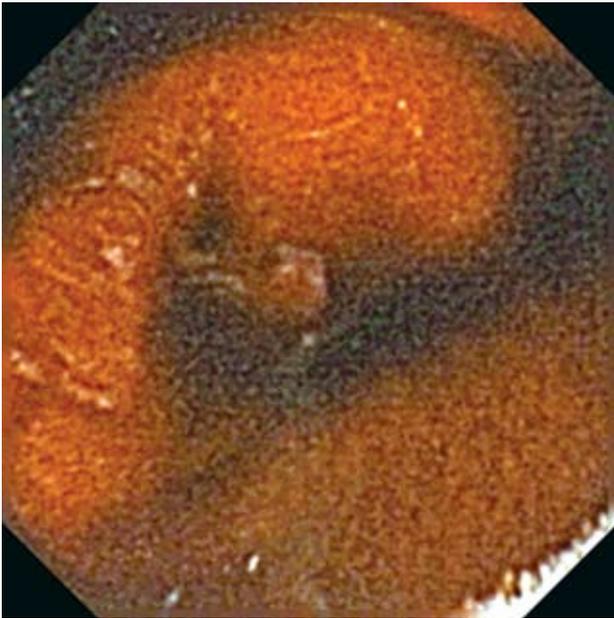


Figure A. A bleeding polypoid mass in the jejunum (wireless capsule endoscopy).

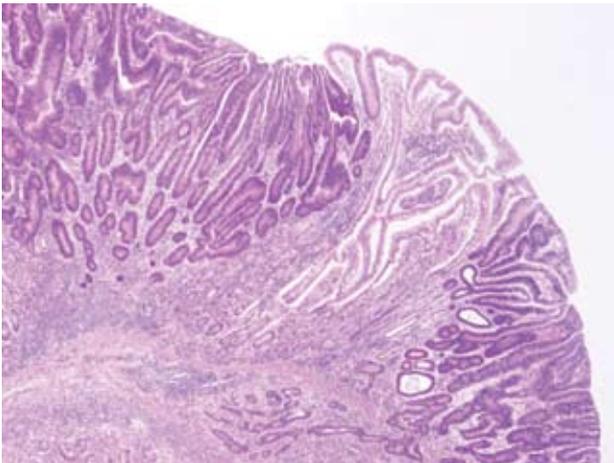


Figure C. Histological examination: The adenocarcinoma does not penetrate the muscularis externa.

with intermittent abdominal pain that is dull, crampy and radiates to the back, 50% present with anorexia and weight loss, 25% with signs of bowel obstruction and 10% with symptoms of bowel perforation. The most common histologic types of malignant tumors, of the small intestine, are as follows: Adenocarcinoma 45%, Carcinoid 29%, Lymphoma 16%, Sarcoma 10%.¹ Adenocarcinomas usually present between the ages of 50 – 70, with a male predominance. Age of onset tends to be earlier in patients with predisposing conditions such as Crohn's disease. The risk



Figure B. A small adenocarcinoma rejected from the small bowel.

of adenocarcinoma may be higher in patients who have colorectal cancer, suggesting a possible common etiology. The incidence is highest in the duodenum and decreases progressively through the rest of the small intestine; 65% are periampullary. Small bowel adenocarcinomas tend to infiltrate the muscularis propria and may extend through the serosa into adjacent tissues such as the pancreatic head. Ulceration is common, and may result in occult GI bleeding or chronic anemia. Symptoms are often nonspecific, but the most frequent is abdominal pain.² In one series of 217 patients with small bowel adenocarcinomas, the most common symptoms were abdominal pain (66%), obstruction (40%) and bleeding (24%). Three-fourths, of the cases, were stage III (AnyT-N1-M0) or IV (AnyT-AnyN-M1) at presentation.³

Evaluation of the entire small intestine was of limited success in the past, due to the lack of endoscopic modalities. Conventional endoscopy is limited to evaluation of the proximal small intestine. The introduction of capsule endoscopy (CE) in 2001, has revolutionized the diagnosis and management of patients with small intestinal disorders, especially those with obscure gastrointestinal bleeding. A meta-analysis comparing the yield of CE with other diagnostic modalities (push enteroscopy and small bowel barium radiography) showed the superiority of the CE in the diagnosis of patients with obscure gastrointestinal bleeding.⁴ The main advantage of CE is its capacity to examine the entire small intestine in a noninvasive manner and is more acceptable and preferred (better tolerance) by the patients, than others endoscopic modalities (double-balloon enteroscopy). It has the disadvantage of being a purely diagnostic modality without therapeutic capabilities and may be of limited diagnostic accuracy with inadequate

bowel preparation. CE could be the initial diagnostic test for sources of bleeding in the small intestine.

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