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A unique case of massive gastrointestinal bleeding

Akihiko Kida, Koichiro Matsuda, Mitsuru Matsuda, Akito Sakai and Yatsugi Noda

Abstract

Objectives: Lipomas are the second most common benign tumors of the small bowel, and most lipomas are asymptomatic. However, lipomas with diameters of >20 mm tend to be symptomatic, for example, to cause bleeding, obstructive jaundice, abdominal pain, intestinal obstruction, intussusception, and/or perforation.

Methods/Results: We report a case of massive gastrointestinal bleeding from a jejunal lipoma combined with intussusception. A preoperative diagnosis of gastrointestinal bleeding derived from a jejunal lipoma combined with intussusception was made based on double-balloon enteroscopy and contrast-enhanced computed tomography, and partial resection of the small intestine was performed. After surgery, there was no additional gastrointestinal bleeding.

Conclusion: There have only been a few reports about cases of jejunal lipoma involving simultaneous bleeding and intussusception. Double-balloon enteroscopy is useful for preoperatively diagnosing bleeding from a lipoma. Our case highlights that jejunal lipoma can cause massive unexplained gastrointestinal bleeding.

Keywords

Gastrointestinal bleeding, jejunal lipoma, intussusception

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Introduction

Lipomas are the second most common benign tumors of the small bowel, and most lipomas are asymptomatic. However, it has also been reported that small bowel tumors can cause gastrointestinal bleeding in rare cases.[1] We report a case in which an ulcer on a jejunal lipoma caused massive gastrointestinal bleeding. The ulcer had formed due to mucosal ischemia related to intussusception.

Case report

A 67-year-old male presented with melena without abdominal pain, sweating, and difficulty standing. His medical history included unstable angina, and he was taking oral clopidogrel and aspirin. A clinical examination revealed mild anemia. Laboratory studies showed an initial hemoglobin value of 11.4 g/dL, a blood urea nitrogen value of 43 mg/dL, and a creatinine value of 0.9 mg/dL. Acute gastrointestinal bleeding was suspected, and upper and lower endoscopy were performed, but the cause of the gastrointestinal bleeding could not be identified. After admission, the patient's melena persisted, and his anemia progressed rapidly (hemoglobin value: 6.0 g/dL), which necessitated a concentrated erythrocyte transfusion (1120 mL). Under a tentative diagnosis of small intestinal bleeding, double-balloon enteroscopy was conducted. A 40-mm yellowish pedunculated tumor was detected in the jejunum (Figure 1(a)). The tumor's surface was villous, exhibited edema-like swelling, and contained an oval ulcer (Figure 1(b)). The entire small intestine was examined, but except for the tumor no other potential causes of gastrointestinal bleeding were detected. Contrast-enhanced computed tomography revealed that the tumor was a round fat-containing mass (Figure 1(c), red arrow), which suggested that intussusception had occurred at the top of the tumor (Figure 1(c), white arrow). A

Department of Internal Medicine, Toyama Prefectural Central Hospital, Toyama City, Japan

Corresponding Author:
Akihiko Kida, Department of Internal Medicine, Toyama Prefectural Central Hospital, 2-2-78 Nishinagae, Toyama City, Toyama 930-8550, Japan.
Email: kidaakihiko@yahoo.co.jp

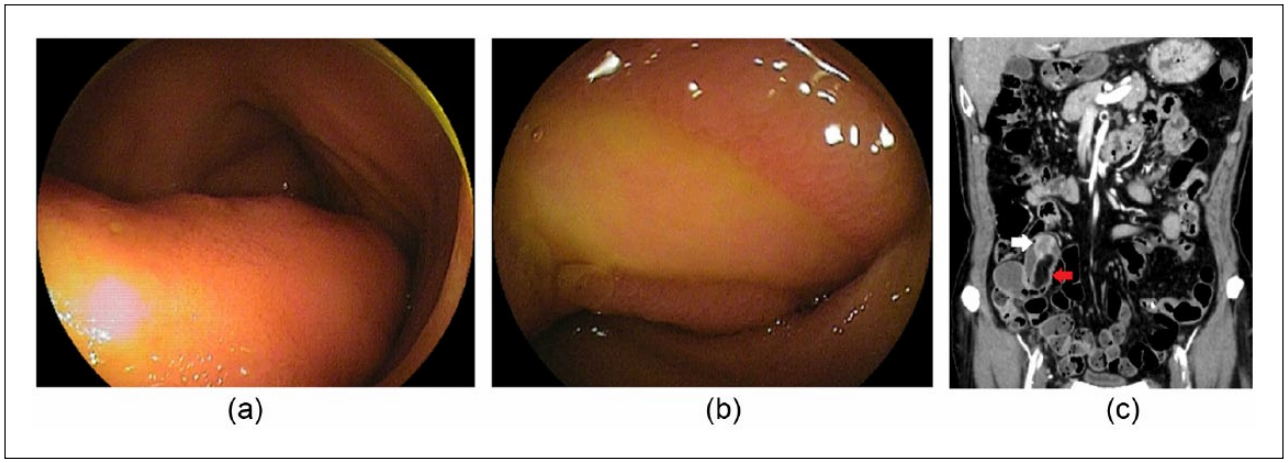

Figure 1. (a) A 40-mm yellow pedunculated tumor was detected in the jejunum. (b) The tumor's surface was villous, exhibited edema-like swelling, and contained an oval ulcer. (c) The red arrow shows a fat-containing mass. The white arrow indicates the intussusception at the top of the tumor.

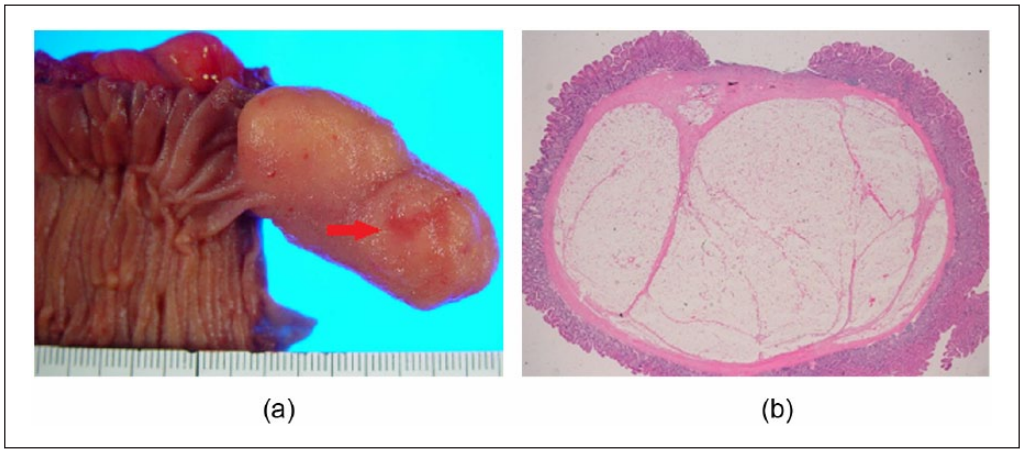

Figure 2. (a) The tumor measured 40 mm in diameter. The red arrow shows that the mucosa overlying the tumor had ulcerated. (b) A pathological examination showed mature fat cells and resulted in a diagnosis of lipoma.

diagnosis of gastrointestinal bleeding caused by a jejunal lipoma combined with intussusception was made.

Partial resection of the small intestine was carried out, and the gross specimen measured 40 mm in diameter. Furthermore, the mucosa overlying the tumor was ulcerated (Figure 2(a), red arrow). A pathological examination showed mature fat cells (Figure 2(b)) and confirmed the diagnosis of an ulcerated jejunal lipoma. As a result, it was suggested that the ulcer on the lipoma's surface, which had formed due to mucosal ischemia related to intussusception, caused the gastrointestinal bleeding. In addition, it was suspected that the fact that the patient was taking two anticoagulants had increased his susceptibility to massive bleeding. After surgery, no additional gastrointestinal bleeding occurred.

Discussion

Lipomas of the gastrointestinal tract are benign tumors of mesenchymal origin and account for 5%–6% of all gastrointestinal tumors.[2] They most commonly occur in the colon (65%–75%), followed by the small bowel (20%–25%).[3] Small intestinal lipomas are more common in the ileum than in the duodenum or jejunum.[3] Therefore, jejunal lipomas only account for a small proportion of small intestinal lipomas. Small intestinal lipomas rarely cause symptoms, but lipomas larger than 20 mm in diameter tend to be symptomatic, for example, to cause bleeding, obstructive jaundice, abdominal pain, intestinal obstruction, intussusception, and/or perforation.[3]

Some case reports have stated that capsule endoscopy and balloon enteroscopy are useful for detecting bleeding from small intestinal lipomas.[4–7] Regarding the endoscopic findings of lipomas, it is reported that lipomas tend to be smooth, yellowish, round tumors with a pedunculated or wide base and to exhibit the "cushion sign" and "naked fat sign."[4,5] Our case's endoscopic findings were similar to those of the previously reported cases. Therefore, it was easy to preoperatively diagnose the lipoma using a combination of the lesion's endoscopic and computed tomography findings.

Lipomas that exhibit symptoms such as gastrointestinal bleeding and intussusception are indicated for endoscopic or surgical resection. In our case, it was necessary to resect the lipoma because of the presence of massive gastrointestinal bleeding and intussusception. There have been a few reports about cases in which endoscopic resection was useful for treating lipoma, most of which involved lesions that arose in the colon,[8] duodenum,[9] or rarely in the jejunum.[10] However, it has also been reported that such procedures are challenging because the fatty tissue found in lipomas is an inefficient conductor of electric current, which results in an increased risk of bleeding and perforation.[10] Therefore, surgical resection was considered to be a better option than endoscopic resection in our case.

There have only been a few reports about cases of jejunal lipoma involving simultaneous bleeding and intussusception.[6,7,11,12] Moreover, there have only been a few reports about cases in which capsule endoscopy and balloon enteroscopy were found to be useful for preoperatively identifying bleeding from small intestinal lipomas.[4–7] Most of the previous cases were diagnosed using computed tomography alone or a combination of computed tomography and capsule endoscopy.[4,5,7,11,12] However, in our case, computed tomography and double-balloon enteroscopy were useful for preoperatively diagnosing both the gastrointestinal bleeding and intussusception. In particular, double-balloon enteroscopy was useful for examining the ulcer on the lipoma's surface in detail during the identification of the source of the gastrointestinal bleeding.

Conclusion

We experienced a case in which an ulcer on the surface of a lipoma caused gastrointestinal bleeding. The ulcer had formed due to mucosal ischemia related to intussusception. We should recognize that jejunal lipomas can cause massive unexplained gastrointestinal bleeding.

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Declaration of conflicting interests

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Ethical approval

Our institution does not require ethical approval for reporting individual cases.

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Informed consent

Written informed consent was obtained from the patient for his anonymized information to be published in this article.

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