A woman with recurrent gastrointestinal bleeding: an obscure diminutive lesion leaded massive blood transfusion

Lingyu Huang¹²³#, Lixiao Hao⁴#, Xiaoying Lou²³⁵, Yi Lu¹²³*

1. Department of Gastrointestinal Endoscopy, The Sixth Affiliated Hospital, Sun Yat-sen University, Guangzhou 510655, People’s Republic of China
2. Guangdong Provincial Key Laboratory of Colorectal and Pelvic Floor Diseases, The Sixth Affiliated Hospital, Sun Yat-sen University, Guangzhou 510655, People’s Republic of China
3. Biomedical Innovation Center, The Sixth Affiliated Hospital, Sun Yat-sen University, Guangzhou 510320, People’s Republic of China
4. Department of Digestive Endoscopy, Shanghai Shuguang Hospital, Shanghai University of Chinese Medicine, Shanghai 201203, People’s Republic of China
5. Department of Pathology, The Sixth Affiliated Hospital, Sun Yat-sen University, Guangzhou 510655, People’s Republic of China

Lingyu Huang# and Li-xiao Hao# contributed equally to this manuscript.

Information of the corresponding authors
Yi Lu
E-mail address: luyi45@mail.sysu.edu.cn
Institution: Department of Gastrointestinal Endoscopy, The Sixth Affiliated Hospital, Sun Yat-sen University, Guangzhou 510655, People’s Republic of China
Guangdong Provincial Key Laboratory of Colorectal and Pelvic Floor Diseases, The Sixth Affiliated Hospital, Sun Yat-sen University
Address: 26 Yuancun Erheng Road, Guangzhou 510655, People’s Republic of China
Biomedical Innovation Center, The Sixth Affiliated Hospital, Sun Yat-sen University, Guangzhou 510320, People’s Republic of China

Conflict of interest
Funding Information

This study was supported by The Sixth Affiliated Hospital of Sun Yat-Sen University Clinical Research-1010 Program.

Key words

Dear Editor,

We present a case of a 60-year-old woman with recurrent obscure gastrointestinal bleeding. She was admitted due to intermittent melena for more than one month. Laboratory test revealed a hemoglobin (Hb) level of 65g/L. Other laboratory tests were almost within the normal range. Gastroscopy, colonoscopy, Tc-99m single photon emission computed tomography (SPECT), enhanced abdominal CT scan, capsule endoscopy, digital subtraction angiography (DSA), double-balloon enteroscopy (DBE) did not identified stigmata of hemorrhage. She had received blood transfusion of 13.5 U due to recurrent bleeding. Detailed procedure was showed in Figure A.

Eventually, this patient received exploratory laparotomy with intraoperative enteroscopy (IOE). A 6-mm polyloid lesion with oozing of blood was found at the 4th-5th portion of the small intestine (Figure B). A length of 5 cm of the small intestine involving the lesion was resected. The pathology suggested a polypoid vascular anomaly of small intestine (Figure C, H.E. staining, 20X). After the surgery, the patient recovered well and had no further bleeding. Three months later, the hemoglobin level rose to normal.

DISCUSSION

Small bowel bleeding accounts for 5% of GI bleeding but it is the most prominent cause of OGIB [1]. Vascular anomalies, which is the most common cause of obscure gastrointestinal bleeding, are classified into two types: “vascular tumor” with
proliferative changes of epithelial cells and “vascular malformation” with structural vascular abnormalities [2]. Pathologically, both vascular and lymphatic dilation were included in this small lesion, which was not common in small intestine.

In this case, the obscure polypoid vascular anomaly was difficult to be identified, which led a tough treatment experience and massive blood transfusion. It was not identified with all the diagnostic algorithm mentioned above, which was a great challenge for diagnosis and treatment. The time and inspection area of the DBE was also important factors influencing the diagnostic yield of OGIB [3], especially for such small-sized lesion. IOE with a transparent cap was helpful to find the lesion behind the folds or at the corner, reducing the miss rate. It not only helped to find the obscure cause for bleeding, but also preserved the small intestine.

References
Figure A. The detailed diagnosis procedure of the patient. Figure B. Intraoperative enteroscopy showing a polypoid lesion with oozing of blood in the 4th-5th portion of the small intestine. Figure C. Vascular and lymphatic dilation involving lamina propria and submucosa, with vascular proliferation, and the vascular lumen was dilated and congested, which suggested a polypoid vascular anomaly of small intestine (H.E. staining, 20X)