



## Significant upper gastrointestinal hemorrhage and intussusception due to a giant Brunner's gland adenoma

To the Editor,

Brunner's gland adenoma (BGA), also known as polypoid hamartoma, is a rare disorder of the duodenum. BGAs are usually found incidentally, but as they grow, potential problems can result. To our knowledge, the combination of significant gastrointestinal hemorrhage and intussusception as the initial clinical presentation of a BGA is new (1). This is the first such case to be reported.

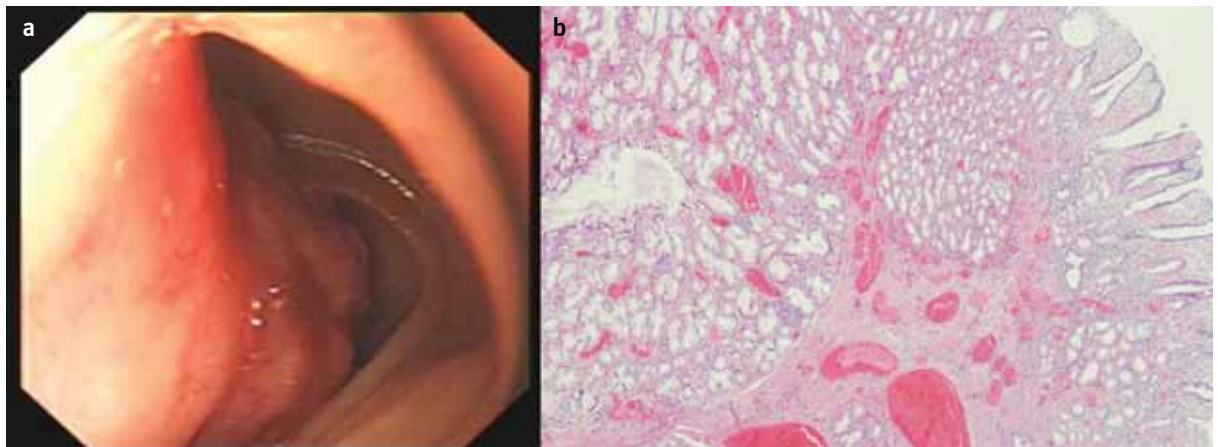
A 49-year-old woman presented with intermittent epigastric distension, pain, and melena for 1 year. The abdominal pain was accompanied by nausea and vomiting. Physical examination revealed right upper quadrant tenderness.

Complete blood count showed a hemoglobin level of 76 g/L (normal: 120-160 g/L). Other laboratory findings were normal. Gastroscopy (OLYMPUS CV-260, Tokyo, Japan) displayed a large, pedunculated polypoid mass originating from the entrance of the second part of

the duodenum (Figure 1a). Multiple biopsy specimens showed non-specific inflammation. Endoscopic ultrasonography (EUS) demonstrated a lesion containing multiple echogenic, round, and some anechoic areas in the submucosa. Contrast-enhanced computed tomography (CT) scan showed a heterogeneously enhancing intraluminal mass with multiple cystic low-density areas. The second and third portions of the duodenum were displaced towards the distal jejunum.

In this condition, endoscopic excision would have been inadequate and even dangerous. Accordingly, a transduodenal polypectomy was performed. Macroscopically, it was 6 by 3 centimeters in size. The pathologic diagnosis was BGA (Figure 1b). The patient's postoperative recovery was uneventful, and she was followed up in remission for 1 year.

Brunner's gland adenoma was first described by Cruveilhier in 1835. They are found most commonly in the duodenal bulb, 0.5 to 2.0 cm in diameter, and tend to present in middle age with no race or gender predomi-



**Figure 1. a, b.** A large cylindrical polyp in the second part of the duodenum (a). Microscopically, clusters of submucosal proliferation of Brunner's glands are separated by fibrous stroma, in which smooth muscle, dilated ducts, and vessels can be seen (hematoxylin and eosin, magnification  $\times 100$ ) (b).

**Address for Correspondence:** Tong-Yu Tang, Department of Gastroenterology, First Hospital of Jilin University, Changchun, China  
E-mail: tangtongyu@163.com

**Received:** 17.8.2013 **Accepted:** 17.10.2013

© Copyright 2014 by The Turkish Society of Gastroenterology • Available online at [www.turkjgastroenterol.org](http://www.turkjgastroenterol.org) • DOI: 10.5152/tjg.2014.5996

nance (2). Patients are either asymptomatic or present with complaints, ranging from nonspecific, epigastric discomfort to gastrointestinal obstruction and bleeding.

Standard endoscopic mucosal biopsies are often not deep enough to reach them. Therefore, the definitive diagnosis is established by examining the histology of EUS-FNA smears or resected samples (3).

Treatment is recommended for tumors larger than 2.0 centimeters, even if they are asymptomatic. Various strategies, such as endoscopic, surgical, or a combination of both, are used, depending on the situation (4,5). Generally, BGAs are benign and have a good prognosis.

To conclude, giant BGAs may have unusual presentations. Delays in diagnosis often reflect the nonspecific nature of the symptoms. Extensive preoperative or even intraoperative evaluation is required to narrow down the differential diagnosis and help avoid overtreatment.

**Ethics Committee Approval:** Ethics committee approval was received for this case from First Hospital of Jilin University Medical Ethics Committee.

**Informed Consent:** Written informed consent was obtained from patient who participated in this case.

**Peer-review:** Externally peer-reviewed.

## Liu et al. Giant Brunner's gland adenoma of the duodenum

**Author contributions:** Concept - T-Y.T.; Design - T-Y.T.; Supervision - T-Y.T.; Resource - Y-Q.L.; Materials - Y-Q.L.; Data Collection&/or Processing - J.L.; Analysis&/or Interpretation - H.X.; Literature Search - J.L.; Writing - J.L.; Critical Reviews - H.X.

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study has received no financial support.

**Jian Liu, Yu-Qin Li, Hong Xu, Tong-Yu Tang**

**Department of Gastroenterology, First Hospital of Jilin University, Changchun, China**

## REFERENCES

1. Bayan K, Tüzün Y, Yılmaz S, Yılmaz G, Bilici A. Pyloric giant Brunner's gland hamartoma as a cause of both duodenojejunal intussusception and obscure gastrointestinal bleeding. *Turk J Gastroenterol* 2009; 20: 52-6.
2. Levine JA, Burgart LJ, Batts KP, Wang KK. Brunner's gland hamartomas: clinical presentation and pathological features of 27 cases. *Am J Gastroenterol* 1995; 90: 290-4.
3. Kim K, Jang SJ, Song HJ, Yu E. Clinicopathologic characteristics and mucin expression in Brunner's gland proliferating lesions. *Dig Dis Sci* 2013; 58: 194-201. [\[CrossRef\]](#)
4. de la Riva S, Carrascosa J, Munoz-Navas M, et al. [Giant Brunner's gland hamartoma: diagnosis and endoscopic treatment]. *Gastroenterol Hepatol* 2011; 34: 333-6. [\[CrossRef\]](#)
5. Stewart ZA, Hruban RH, Fishman EF, Wolfgang CL. Surgical management of giant Brunner's gland hamartoma: case report and literature review. *World J Surg Oncol* 2009; 7: 68. [\[CrossRef\]](#)