

Endocrinology through an endoscope: lesions in the esophagus, stomach, and duodenum in gastrinoma

• **Fig. 1** shows the upper endoscopy of a 58-year-old man who was admitted for persistent gastrointestinal bleeding, which eventually required angiography with coiling of the side branches of the pancreaticoduodenal artery.

He had been using rabeprazole (20 mg/day) for gastroesophageal reflux disease since 2007. Although a single duodenal ulcer usually requires no further testing, the severity of the bleeding and the extent of the lesions warranted further investigation. Additional tests – serum gastrin (1500 ng/L, normal < 115 ng/L), chromogranin A (1150 µg/L, normal < 94 µg/L), a positive secretin stimulation test (serum gastrin 5251 ng/L 10 minutes after an intravenous 2 U/kg bolus), and somatostatin receptor scintigraphy and endoscopic ultrasound (• **Fig. 2**) – suggested a gastrinoma.

Other possibilities were excluded by appropriate tests, including *Helicobacter pylori*, drug-associated causes, vasculitis, ischemia, herpes simplex, and cytomegalovirus. Computed tomography did not identify the lesion shown in • **Fig. 2** or any metastases. During surgery, a palpable lesion near the pancreas was enucleated. Pathological analysis confirmed a peripancreatic lymph node gastrinoma. This case illustrates the following points. First, fundic gland polyps are a less recognized but diagnostically useful manifestation of gastrinoma [1]. Although long-term proton-pump inhibitor therapy can also cause gastric fundic gland polyposis, this manifestation is usually not so elaborate as observed here (• **Fig. 1**) [2]. Second, relying on these and other more subtle manifestations may become increasingly important with the widespread use of proton-pump inhibitors, which may mask symptoms and delay diagnosis [3], as in our case. Third, the secretin stimulation test remains essential to differentiate gastrinoma from hypergastrinemia due to proton-pump inhibitors, although a false-positive test was recently reported [4]. Finally, our case reiterates the usefulness of somatostatin receptor scintigraphy and endoscopic ultrasound in the preoperative work-up of gastrinoma [5].



Fig. 1 Endoscopic view of **a** the esophagus, **b** the stomach, and **c** the duodenum, showing severe reflux esophagitis, multiple fundic gland polyps, and a single ulcer in the descending part of the duodenum.

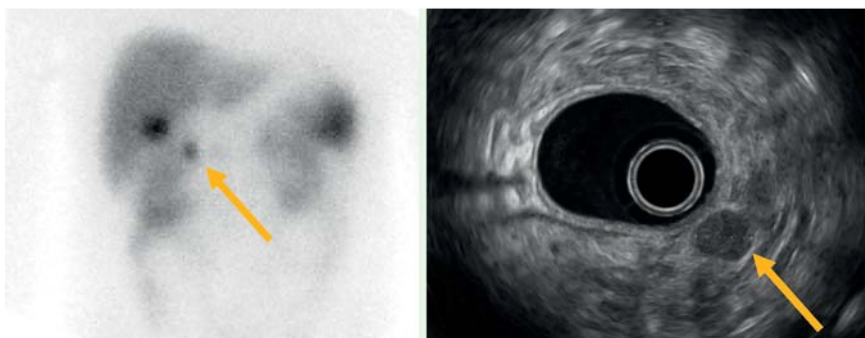


Fig. 2 Preoperative images of the peripancreatic lymph node gastrinoma as visualized by **a** somatostatin receptor scintigraphy and **b** endoscopic ultrasound.

Competing interests: None

E. J. Hoorn¹, H. Aktas², R. K. Linskens³, E. J. Kuipers^{1,2}, P. B. Mensink²

¹ Department of Internal Medicine, Erasmus Medical Center, Rotterdam, The Netherlands

² Department of Gastroenterology and Hepatology, Erasmus Medical Center, Rotterdam, The Netherlands

³ Department of Gastroenterology, St Anna Hospital, Geldrop, The Netherlands

References

- 1 Aprile MR, Azzoni C, Gibril F et al. Intramucosal cysts in the gastric body of patients with Zollinger-Ellison syndrome. *Hum Pathol* 2000; 31: 140–148
- 2 Freeman HJ. Proton pump inhibitors and an emerging epidemic of gastric fundic gland polyposis. *World J Gastroenterol* 2008; 14: 1318–1320
- 3 Wong H, Yau T, Chan P et al. PPI-delayed diagnosis of gastrinoma: oncologic victim of pharmacologic success. *Pathol Oncol Res* 2010; 16: 87–91

4 Goldman JA, Blanton WP, Hay DW et al. False-positive secretin stimulation test for gastrinoma associated with the use of proton pump inhibitor therapy. *Clin Gastroenterol Hepatol* 2009; 7: 600–602

5 Zimmer T, Stölzel U, Bäder M et al. Endoscopic ultrasonography and somatostatin receptor scintigraphy in the preoperative localisation of insulinomas and gastrinomas. *Gut* 1996; 39: 562–568

Bibliography

DOI 10.1055/s-0030-1256028

Endoscopy 2011; 43: E32

© Georg Thieme Verlag KG Stuttgart · New York · ISSN 0013-726X

Corresponding author

E. J. Hoorn, MD, PhD

Erasmus Medical Center, Room D-406
PO Box 2040
3000 CA Rotterdam
The Netherlands
Fax: +31-10-4366372
ejhoorn@gmail.com