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 inhibitor therapy. Clin Gastroenterol Hepatol 2009; 7: 600 – 602

Bibliography

1 Aprile MR, Azzoni C, Gibril F et al. Intramusosal 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

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E. J. Hoorn1, H. Aktaş2, R. K. Linskens3, E. J. Kuipers1,2, 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

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

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.

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