Gastric neuroendocrine tumor presenting with gastrointestinal bleeding

Key words: Endoscopic submucosal dissection. Gastric neuroendocrine tumor. Gastrointestinal bleeding.

Dear Editor,

The most reported manifestations of gastric neuroendocrine tumor (GNETs) are non-specific symptoms such as epigastric pain, nausea, dyspepsia, etc. Gastrointestinal bleeding is an uncommon manifestation in GNETs patients and only few cases have been reported (1-4). This letter to editor describes a gastric polypoid lesion presenting with melena which was ultimately diagnosed with GNETs.

Case report

A 49-year-old woman came to our hospital with a week history of melena. There was no family history of gastrointestinal cancer. Upon presentation, her physical examination was not remarkable. Laboratory studies showed mild anemia (hemoglobin 9.7 g/dL, normal values: 11.5 ~ 15.0 g/dL) and an elevated blood gastrin level (84.96 × 10⁻³ ng/mL, normal values: 2.1 ~ 31.5 × 10⁻³ ng/mL). Esophagogastroduodenoscopy (EGD) revealed a 15 mm polypoid lesion in gastric body with erythematous depression and central ulcer (Fig. 1). Endoscopic ultrasonography (EUS) showed a thick mucosal layer without regional lymph node swelling (Fig. 2). Computerized tomography revealed no metastasis.

The patient received endoscopic submucosal dissection (ESD) (Fig. 3) and histopathologic examination revealed GNETs with neoplasia-free vertical and radial margins, and the GNET was classified as type I (Fig. 4). He was discharged 5 days after ESD and no melena or recurrence was noted within a follow-up of a month.

Discussion

GNETs arise from enterochromaffin-like cells of the stomach. They represent 8.7% of all gastrointestinal neuroendocrine tumors, and account for 0.6-2% of all gastric polyps identified (5,6). GNETs are classified into four types, based on pathogenesis and histomorphologic characteristics; these types differ in biological behavior and prognosis, ranging from benign to high-
ly malignant biological behavior and extremely poor prognosis (7). Preoperative diagnosis of GNETs remains difficult because of their rarity of occurrence, protean clinical manifestations, and wide variety of radiological and endoscopic presentation. Primary treatment of GNETs includes endoscopic or surgical removal, and endoscopic removal is recommended for GNETs < 20 mm that have not invaded beyond submucosa or otherwise metastasized (6,7). In the present case, the primary symptom was gastrointestinal bleeding and we successfully managed the tumor by endoscopic submucosal dissection. Periodical follow-up is recommended as recurrence may be encountered.

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Fig. 2. Endoscopic ultrasound (EUS) image showed a thick mucosal layer.

Fig. 3. Endoscopic submucosal dissection (ESD) showing the resected specimen.

Fig. 4. Histologic appearance of the resected specimen showing gastric neuroendocrine tumor (× 40). A. H and E stain. B. CgA immunostain (+). C. NSE immunostain (+). D. Syn immunostain (+). E. CK immunostain (+). F. Ki-67 immunostain (5% +).
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References


