An unusual cause of life-threatening upper gastrointestinal bleeding

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Dear Editor,

A previously healthy 56-year-old female was hospitalized due to intermittent melena and transient syncope for one-month duration. Physical examination on admission showed that her heart rate was 105 beats per minute and blood pressure was 89/55 mmHg. Her hemoglobin was 6.7 g/dl. She received fluid infusion, blood transfusion, acid suppression and hemostasis treatment. Abdominal enhanced computed tomography
(CT) demonstrated a well-defined mass with uniform adipose density in the antrum, measuring 4 × 5 cm (Fig. 1A; computed tomography value -70 HU). Gastroscopy revealed a giant submucosal tumor with superficial ulceration in anterior wall of the gastric antrum (Fig. 1B). Endoscopic ultrasound (EUS) showed a homogeneous, well-circumscribed, hyperechoic mass originating from the submucosa layer (Fig. 1C). Distal partial gastrectomy was performed. Postoperative histopathology examination of the resected specimen (Fig. 1D) revealed that the tumor was composed of closely arranged and uniformly shaped proliferative mature adipocytes (Fig. 1E), which were located in the submucosa layer with superficial mucosal ulcer (Fig. 1F). The patient was diagnosed with a giant gastric lipoma with a superficial ulcer and no symptoms were observed during the three-month follow-up.

Discussion

Gastric lipomas are rare benign, slow-growing tumors composed of mature adipose tissue covered with a fibrous capsule. Gastric lipomas account for 5% of all gastrointestinal lipomas and less than 1% of all benign gastric tumors (1). The symptoms of gastric lipomas depend on the size, location and whether it is accompanied by an ulcer (2). Smaller tumors (< 2 cm) are usually asymptomatic. When the tumor is large (> 3 cm) or accompanied by an ulcer, it may manifest as abdominal pain, indigestion, gastrointestinal bleeding or outlet obstruction (3). CT, gastroscopy and EUS are helpful in the diagnosis of gastric lipomas. CT has a high sensitivity and specificity. A CT scan showing a homogeneous fatty mass with a fat density between -70 and -120 HU would be diagnostic of a gastric lipoma (4). On gastroscopy, gastric lipomas appear as masses protruding into the stomach cavity, with or without mucosal ulceration. EUS can visualize the shape and size of the mass and the depth of invasion of the gastric wall. Asymptomatic gastric lipomas do not require special treatment. Smaller (< 2 cm) gastric lipomas are usually removed endoscopically, such as endoscopic mucosal resection (EMR) (2) when symptoms are present. Endoscopic submucosal dissection (ESD) is a feasible, safe and effective treatment for lipomas with a diameter ≤ 5 cm (5). Larger (> 4
cm) gastric lipomas or with complications such as hemorrhage or outlet obstruction are usually treated with surgical procedures such as partial gastrectomy (1).

Reference
Fig. 1. A. Abdominal computed tomography (CT) demonstrated a well-defined mass with uniform adipose density in the antrum measuring 4 × 5 cm (computed tomography value -70 HU). B. Gastroscopy revealed a giant submucosal tumor with superficial ulceration in anterior wall of the gastric antrum. C. Endoscopic ultrasound (EUS) showed a homogeneous, well-circumscribed, hyperechoic mass originating from the submucosa layer. D. The resected specimen. E. Postoperative histopathology examination of the resected specimen revealed the tumor was composed of closely arranged and uniformly shaped proliferative mature adipocytes (HE × 100). F. Postoperative histopathology examination of the resected specimen revealed superficial mucosal ulcer of the tumor (HE × 100).