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Endoscopic submucosal dissection of a rare antral mass: gastric fibrolipoma

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Keywords: Gastric neoplasm. Gastric fibrolipoma. Endoscopic submucosal dissection.

Dear Editor,

A 60-year-old male was hospitalized with upper abdominal pain of two-months duration. He had no previous history of symptoms related to the upper gastrointestinal tract. Physical examination was unremarkable. A semicircular round mass with a smooth surface was found at the gastric antrum measuring 2.0 × 2.0 cm by gastroscopy (Fig. 1A). Endoscopic ultrasound (EUS) demonstrated a heterogeneous hyperechoic mass originating from the submucosal layer (Fig. 1B). Abdominal computed tomography (CT) revealed a fat-density mass with internal

mixed density at the gastric antrum (Fig. 1C). Complete blood tests, liver, renal and coagulation function and tumor markers were within reference values. Endoscopic submucosal dissection (ESD) was performed. Postoperative histopathology examination revealed that the tumor was composed of closely arranged proliferating mature adipocytes with a consistent size and shape. Collagen fiber hyperplasia between adipocytes was found in a focal area (Fig. 1D and E). The patient was diagnosed with a gastric fibrolipoma. He was discharged home uneventfully and no symptoms were apparent during 12 months of follow-up.

Discussion

Fibrolipoma is one of the uncommon variants of lipomas, characterized by the presence of adipose tissue and abundant amounts of fibrous tissues, usually encountered in a subdermal location (1). The etiology of fibrolipoma is generally considered to be chronic mechanical irritation or inflammation that induces secondary fibrous changes in the lipoma (2). Fibrolipomas are rare in the gastrointestinal tract and extremely rare in the stomach. Gastric fibrolipomas are usually asymptomatic when the tumor size is small. Gastric hemorrhage, abdominal pain, vomiting and dyspepsia may occur with enlargement of the tumor. Computed tomography (CT) scan of gastric fibrolipoma usually demonstrates a circular or oval, sharply marginated tumor with fat-density or mixed density, which is difficult to differentiate from angiomyolipoma (3). EUS is useful for differentiating fibrolipoma from gastrointestinal stromal tumor or lipoma by the findings of heterogeneous hyperechoic and detection of the tumor origin (4). Current strategies to resect a gastric submucosal tumor include surgical and endoscopic resection. Endoscopic resection has several advantages over surgical methods, such as a minimally invasive nature, shorter hospital stays and lower costs, etc. (5). A careful postoperative follow-up is necessary as recurrence or malignant transformations have been reported (2). To the best of our knowledge, we report the first case of gastric fibrolipoma resected by ESD with detailed CT and EUS information.

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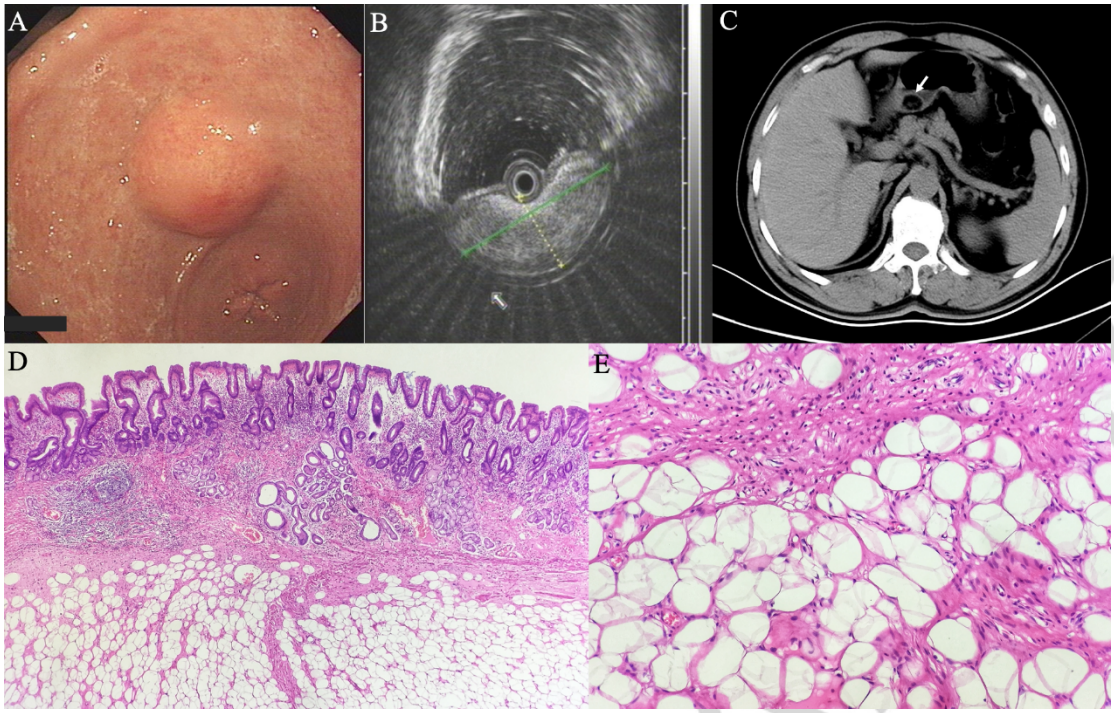

Fig. 1. A. Semicircular round mass with a smooth surface was found at the gastric antrum measuring 2.0 × 2.0 cm by gastroscopy. B. Endoscopic ultrasound demonstrated a heterogeneous hyperechoic mass originating from the submucosal layer. C. Abdominal computed tomography revealed a fat-density mass with internal mixed density at the gastric antrum (white arrow). D and E. Postoperative histopathology examination revealed that the tumor was composed of closely arranged proliferating mature adipocytes with a consistent size and shape. Collagen fiber hyperplasia between adipocytes was found in a focal area (D: HE × 40; E: HE × 200).