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Endoscopic submucosal dissection of an unexpected symptomatic esophageal mass: intramural esophageal hematoma

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Keywords: Intramural esophageal hematoma. Esophageal submucosal tumor. Endoscopic submucosal dissection.

Dear Editor,

A 53-year-old male with a history of hypertension was hospitalized with retrosternal pain while eating of a one-month duration. He had no previous history of symptoms related to the upper gastrointestinal tract and physical examination was unremarkable. Gastroscopy revealed a round mass with a smooth light bluish surface in the middle esophagus (Fig. 1A). Endoscopic ultrasound (EUS) showed an inhomogeneous hypoechoic and well demarcated mass localized to the submucosal

layer (Fig. 1B). Complete blood tests, liver, renal, coagulation function and tumor markers were within reference values. Endoscopic submucosal dissection (ESD) was performed and the resected specimen contained a reddish mass measuring 1.5 × 1.7-cm (Fig. 1C). Histopathology examination revealed a hematoma in the submucosa (Fig. 1D; HE ×20). Peripheral fibrous tissue hyperplasia, infiltration of lymphocytes and other inflammatory cells were observed around the hematoma. Granulation tissue formation and hemosiderin deposition was found in focal areas of the hematoma (Fig. 1E; HE ×200). The immunohistochemical analysis for SMA was positive (Fig. 1F; HE ×100); CD34, CKpan, CD117, DOG-1, Desmin and S-100 were negative. The patient was diagnosed with an intramural esophageal hematoma (IEE) and no symptoms were observed during 12 months of follow-up.

Discussion

IEE is a rare but well-documented condition that is part of the spectrum of esophageal injuries that includes the more common Mallory-Weiss tear and Boerhaave's syndrome (1). IEE have been reported in association with coagulopathy, esophageal instrumentation, variceal sclerotherapy, foreign body ingestion and trauma. In contrast, spontaneous IEE occurs without vomiting, eating, trauma, abnormal hemostasis or aortic pathology (1). The most common presenting symptoms are chest pain and/or hematemesis. Other symptoms may include epigastric pain and odynophagia (2). Computed tomography (CT) scan and magnetic resonance imaging (MRI) detected an intraluminal or intramural soft tissue density and also ruled out an esophageal perforation. Gastroscopy usually shows a bluish or purplish mass, with or without evidence of esophageal lumen obstruction (2). Treatment of this benign lesion is mainly supportive with resolution of symptoms usually over several weeks (2). The presenting symptoms of IEE mimic various other common cardiovascular, pulmonary or esophageal diseases.

Our patient was diagnosed with an esophageal submucosal tumor before the ESD procedure despite the fact that several inspections were performed. ESD is able to achieve *en bloc* margin-negative resection of tumors, while avoiding invasive surgery and allowing the preservation of the native organ (3). To the best of knowledge, this

is the first case of spontaneous IEE treated by ESD.

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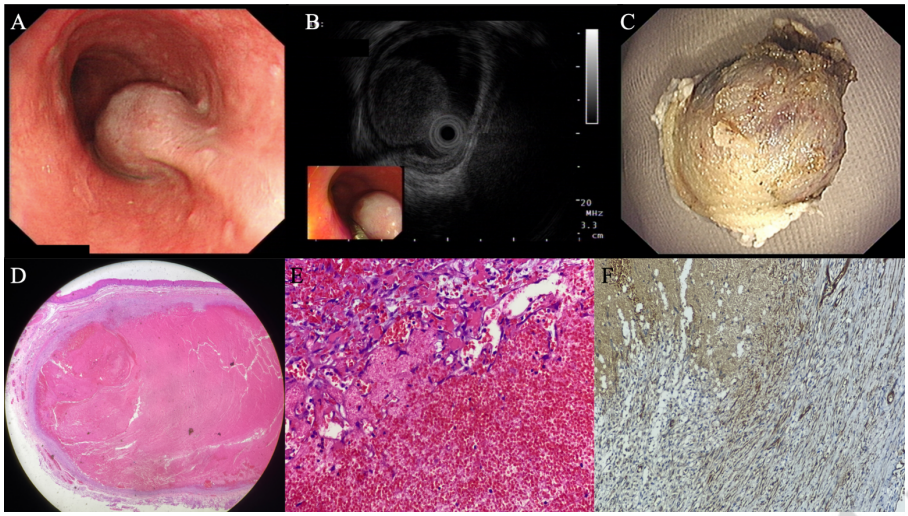

Fig. 1. A. Gastroscopy revealed a round mass with a smooth light bluish surface in the middle esophagus. B. EUS showed an inhomogeneous hypoechoic and well demarcated mass localized to the submucosal layer. C. The resected specimen contained a reddish mass measuring 1.5 × 1.7 cm. D. Histopathology examination revealed a hematoma in the submucosa (HE ×20). E. Peripheral fibrous tissue hyperplasia, infiltration of lymphocytes and other inflammatory cells were observed around the hematoma. Granulation tissue formation and hemosiderin deposition was found in the focal area of the hematoma (HE ×200). F. The immunohistochemical analysis for SMA was positive (HE ×100).