



## Treatment of unusual esophageal stenosis caused by gastroesophageal reflux disease

To the Editor,

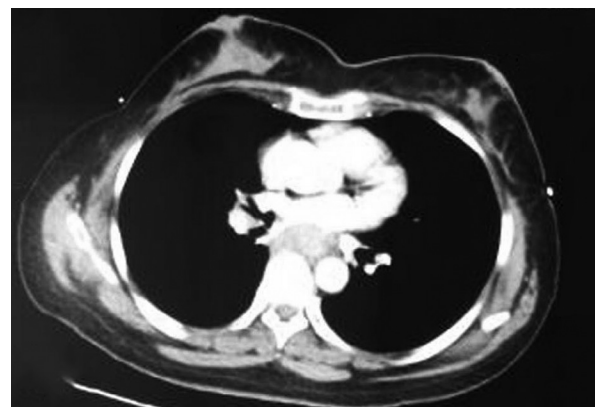
A 40-year old woman was hospitalized with a 2-year history of dysphagia and weight loss of 30 pounds; she had slight acid reflux and heartburn and no history of oral medication use. All her vital signs were normal. Her laboratory test results were normal, including the complete blood count, tumor marker and thyroid hormone levels, and the biochemical profile. A 5.0-cm stenosis in the lower esophagus was initially confirmed by performing an upper gastrointestinal barium examination (Figure 1). Contrast-enhanced chest computed tomography revealed lower esophageal wall thickening, without the detection of any masses (Figure 2). An endoscopic examination revealed a lesion (1.5×2.0 cm) in the lower esophagus (Figure 3). A pathological examination showed neutrophil-dominated inflammatory cell infiltration.

The patient had no malignant tumor history or associated risk factors. Subsequently, 24-h esophageal impedance–pH monitoring showed a DeMeester integral of 207.2 (normal<14.72). The number of pH lower than 4 was 154 during the 24-h study period, which increased significantly (normal<55). These indicated a diagnosis of gastroesophageal reflux disease (GERD). The patient underwent esophageal angiography and esophageal balloon dilatation by digital subtraction angiography. The esophageal stenosis was removed. A month later, the patient underwent laparoscopic Nissen fundoplication again. After an uneventful postoperative period, the patient was discharged, with no recurrence of symptoms in the follow-up.

Gastroesophageal reflux disease is a common gastrointestinal motility disorder, which increases the risk of an esophageal adenocarcinoma (1). Risk factors of less significance could include male gender, obesity, and an irrational lifestyle, whereas smoking, alcohol consumption, *Helicobacter pylori* infection, and previous chemotherapy are considered to be of minimal significance (2-4). However, benign esophageal stenoses occur infrequently, particularly in middle-aged people who have healthy lifestyles. The patient had long-term acid

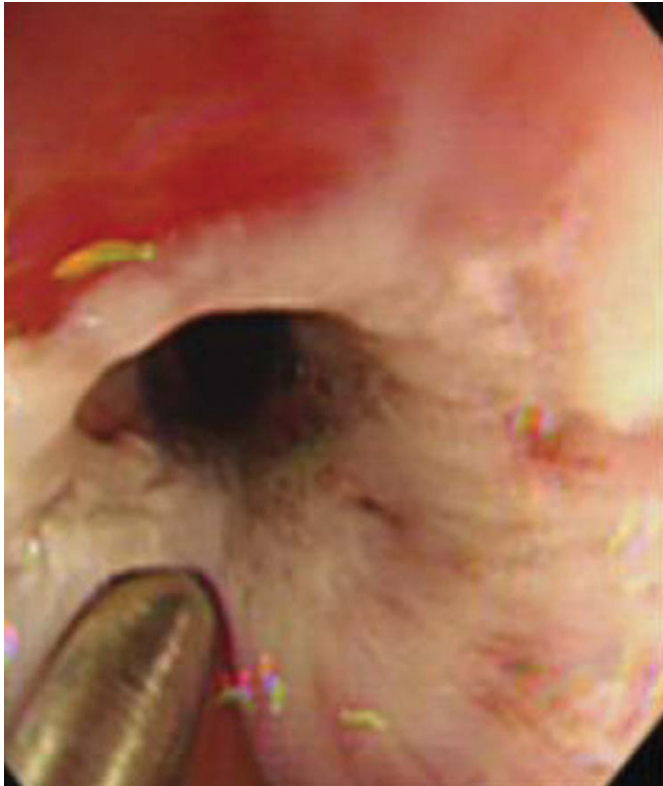


**Figure 1.** Lower esophageal wall with irregularities and filling defects; the length of the stenosis was approximately 5 cm.



**Figure 2.** Contrast-enhanced CT showed lower esophageal wall thickening; the esophageal lumen was strait.

reflux and heartburn history. Twenty-four-hour esophageal impedance–pH monitoring and gastroscopy markedly assist in making the diagnosis. After performing esophageal balloon angioplasty and anti-reflux



**Figure 3.** Endoscopy revealed the esophageal stenosis, and the mucosa and submucosa thickened.

surgery, symptoms of esophageal stenosis patients with GERD markedly improve. Therefore, we hypothesize that esophageal stenosis occurs due to or is most likely caused by GERD.

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**Ethics Committee Approval:** Ethics committee approval was received for this study from the ethics committee of First Affiliated Hospital of Zhengzhou University.

**Informed Consent:** Written informed consent was obtained from the parents of the patients who participated in this study.

**Peer-review:** Externally peer-reviewed.

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