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Upper esophageal ring due to gastric heterotopia

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Heterotopic gastric mucosa (HGM) can occur in the fore-mid- and hindgut and, conceivably, at any of their derivatives. The origin of HGM is either heterotopic (congenital) or metaplastic (acquired). The reported incidence of HGM in the endoscopic literature ranges from 0.29-10% but an incidence of up to 70% has been reported in autopsy studies. Heterotopic gastric mucosa patches have been reported to occur anywhere along the gastrointestinal tract from mouth to anus [1].

The patient presented herein complained of dysphagia and was diagnosed as having upper esophageal ring (Fig. 1). The scope passed the ring easily and subsequent biopsies confirmed gastric heterotopia *Helicobacter pylori*-negative. The patient was successfully treated with proton pump inhibitors.

HGM in the esophagus is thought to arise from gastric precursor cells that remain after incomplete replacement of the original stratified columnar epithelium lining the embryonic esophagus by stratified squamous epithelium. Diagnosis of HGM is often difficult and requires experience and a high degree of suspicion. Interestingly, there seems to be a clear connection of HGM with laryngoesophageal reflux and globus in some patients. At endoscopy, the HGM appears as a mainly flat or slightly raised, well circumscribed red-orange salmon-colored patch. This is mainly a solitary patch but can be multiple, measuring from a few millimeters to several centimeters. Complications of HGM patches include dysphagia, upper gastrointestinal bleeding, stricture [2] and fistula formation, upper esophageal ring and adenocarcinoma. Of interest, upper esophageal rings may coexist with Barrett's esophagus [3].

This case corresponds to type III HGM according to the new clinicopathologic classification of esophageal HGM [4], i.e., asymptomatic patients (HGM I), patients who complain of dysphagia, odynophagia, hoarseness and coughing without further morphologic findings (HGM II), patients symptomatic due to morphologic changes such as esophageal strictures, webs, or esophagotracheal fistula (HGM III), patients with malignant transformation via dysplasia (intraepithelial neoplasia, HGM IV) and patients with cervical esophageal adenocarcinoma (HGM V). Consequently, the need for endoscopic surveillance is of importance in these HGM patients.

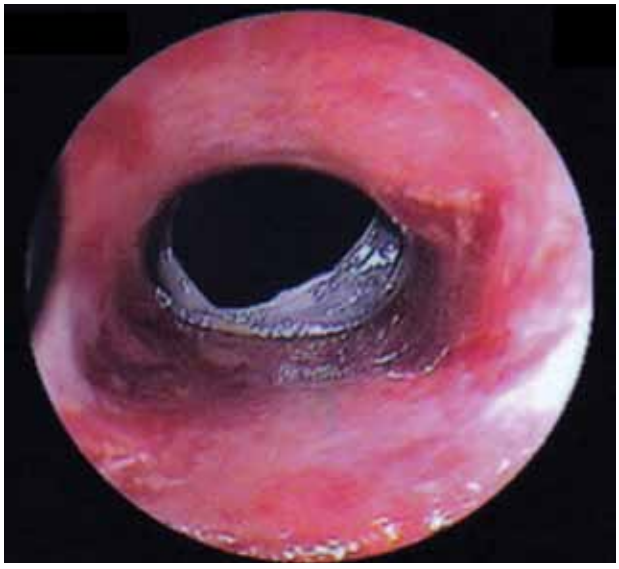

Figure 1 Upper esophageal ring due to gastric heterotopia

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Conflict of Interest: None

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