CASE REPORT

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Heterotopic Gastric Mucosa in the Upper Esophagus: Report of a Case with Adenoma

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ABSTRACT

The inlet patch is a congenital anomaly consisting of heterotopic gastric mucosa (HGM) most commonly located in the postcricoid portion of the esophagus at or just below, the level of the upper esophageal sphincter. Foci of HGM have been identified at different sites in the human body, including the head and neck, gastrointestinal tract, hepatobiliary system, and genital system, but the most common location in the proximal esophagus, which is referred to as cervical inlet patch (CIP). The presence of a HGM in the upper esophagus is an infrequent disorder. The most common histological subtype of CIP is the fundic mucosa (gastric body type with oxyntic glands, acid-secreting parietal and chief cells) followed by cardia-type mucosa. The true prevalence of CIP varies and it is usually incidental finding during endoscopy because CIP is always asymptomatic. The CIP is usually found at between 15 and 21 sm from the bite guard and on standard endoscopy it is found as a reddish or salmon-rose colored focal area and in the narrow band imaging mode it is look like as a homogeneous dark brown lesion, which is distinctly separated from the light green squamous epithelium, and the patch may be variable in size and in shaped (oval, round or even geographical), rarely may appear as a protrusive or polypoid lesion.

Keywords: Cervical inlet patch, heterotopic gastric mucosa, white-light imaging, narrow-band imaging, adenomatous polyp

INTRODUCTION

The inlet patch is a congenital anomaly consisting of heterotopic gastric mucosa (HGM) and island of HGM has been identified at different sites in the human body, but the most common location in the proximal esophagus, which is referred to as the cervical inlet patch (CIP) [1-4]. Although its etiology is unknown, it is considered an inborn disorder, an anomaly that occurs during embryogenesis [4]. The prevalence of CIP ranges from 0.2% to 13.8% when determined by endoscopic surveillance, but is as high as 70% when microscopically visible foci in surgical spicemens are included [4].

CIP is always asymptomatic, and it was believed to be of little clinical relevance [3]. However, emerging studies have described the acid-secreting characteristics of HGM and associations of CIP with gastroesophageal reflux disease and related complications [4]. Additionally, complications such as stricture, fistula, infection, mucosal hyperplasia, and malignant transformation have been reported [4]. Careful endoscopic diagnosis could reveal that an idiopathic globus sensation is attributable to CIP, which can be treated successfully by endoscopic ablation or acid suppression therapy [4].

Image-enhanced endoscopy, including several new optical and dye-based techniques, improves the effectiveness if the diagnosis of gastrointestinal tract neoplasm [4]. The CIP is usually found on standard endoscopy as a reddish or salmon-rose colored focal area and in the narrow band imaging (NBI) mode it is look like as a homogeneous dark brown lesion, which is distinctly separated from the light green squamous epithelium [2], and the patch may be variable in size and in shaped [2,5]. NBI systems enhance visualization of changes in surface mucosal and vascular patterns [4]. Because CIPs are always located at the point of physiological narrowing of the esophagus (the upper esophageal sphincter) and display characteristic increased surface vascularity likely to improve CIP detection [4]. The presence of oxyntic or cardia mucosa, defined as the columnar epithelium with glands containing parietal and chief cells, or columnar epithelium composed only of mucous cells, was considered histologically confirmed CIP [4]. In this case using white-light imaging (WLI) and NBI system [4].

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CASE PRESENTATION

Forty one-year-old female patient entered the clinic with complaints of pain in the epigastric area, heartburn, flatulence, dysphagia, and feeling of a foreign body (globus sensation) in the throat. According to her, she considers herself sick for several months, but does not associate the reason with anything. With the complaints mentioned above, she underwent Esophagogastroduodenoscopy (EGDS) examination in different clinics. Because of the recent EGDS examination, an inlet patch and on its surface epithelial derivative type 0-2a + 1p with signs of dysplasia was found in the esophagus, and endoscopic signs of incomplete scarring of the stomach, erosive gastritis, and superficial bulbitis were observed, clo test for *H. pylori* was negative. Because of the pathocytomorphological examination of the biopsy material taken from the esophagus, an adenomatous polip with incomplete metaplasia was observed. The condition of the patient was evaluated based on the examination, and endoscopic submucosal dissection (ESD) was recommended. During the operation, hanging toward the lumen, crossed a polypoid lesion with a villous structure was observed on the HGM covering a distance of 14-17 sm from the incisor; its surface and vascular patterns were refined with WLI and NBI modes. The edges of that area were marked on the border of the surrounding healthy mucosa, a submucosal pad was created by injecting gelofusine-indigo carmine solution under the mucous membrane, and the pathological area was removed along the marked border with the submucosal layer with a special tool. According to the opinion of pathocytomorphological examination, in that area showed gastric cardia gland structures, signs of inflammation and microscopic results corresponding were obtained (Figure 1).

DISCUSSION

Benign complications of CIP reported in the literature are rare but include strictures, web, ulceration, bleeding, fistula with or without subcutaneous abscesses, perforation, and polyps. In CIP without complications, there are no standardized therapeutic approach. Asymptomatic patients do not require any treatment. Acid suppressive therapy with proton pomp inhibitor may improve symptoms but has not been proven in a trial setting. We used argon plasma coagulation, endoscopic mucosal resection, ESD, and a novel technique radiofrequency ablation for endoscopic therapy. In this case we use ESD with an adenomatous polyp arising in CIP. This is a minimally invasive procedure that removes this lesion from the esophagus of a patient without removing the organ involved. The native organ is left in place, allowing a patient to maintain her quality of life.

In conclusion, newer endoscopic techniques are emerging to treat the conditions, with high rates of efficacy and durability. The patient in this case declined further intervention and opted for surveillance. Risks of strictures in this area would be considered very high following ESD, but we assume that the efficacy of novel endoscopic therapies is warranted.

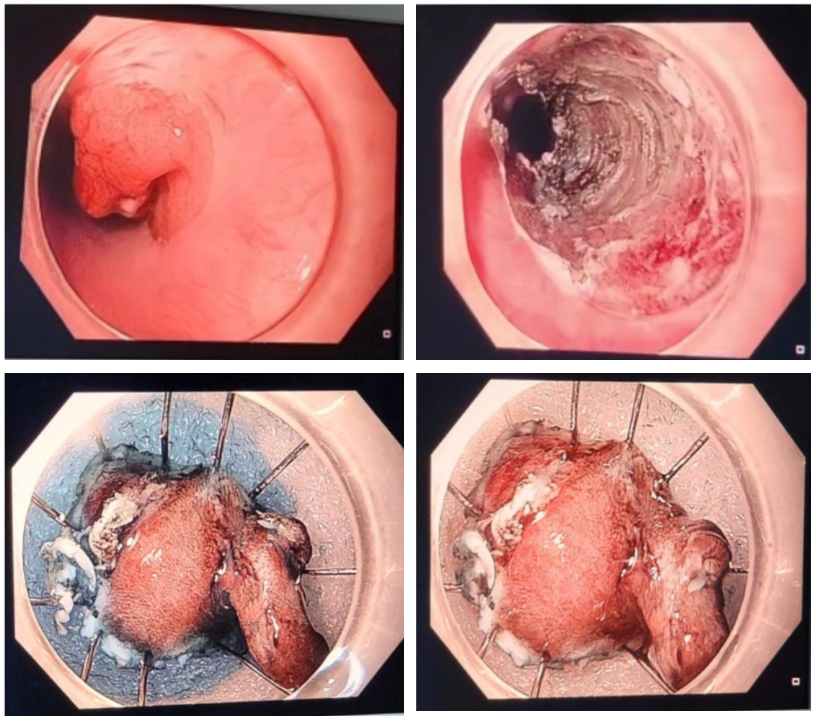

Figure 1. Heterotopic gastric mucosa in the upper esophagus complicated by an adenomatous polyp (Paris cl. 1sp)

Ethics

Informed Consent: Informed consent was obtained from the patient.

Peer-review: Externally and internally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: F.G., T.M., B.M., G.A., V.E., Concept: F.G., T.M., B.M., G.A., V.E., Design: F.G., T.M., B.M., G.A., V.E., Data Collection or Processing: F.G., T.M., B.M., G.A., V.E., Analysis or Interpretation: F.G., T.M., B.M., G.A., V.E., Literature Search: F.G., T.M., B.M., G.A., V.E., Writing: F.G., T.M., B.M., G.A., V.E.

Conflict of Interest: No conflict of interest was declared by the authors.

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