Gastric adenocarcinoma of fundic gland type with two closely located lesions endoscopically resected en masse

► **Fig. 1** Endoscopic findings. In the greater curvature of the fornix, two small lesions were found adjacent to each other (arrows). Each was <2 mm in diameter, whitish, and flat, with poorly defined borders. They were located <1 cm apart.

A 73-year-old man with type 2 diabetes mellitus, but otherwise healthy, underwent esophagogastroduodenoscopy screening. The examination revealed red streaks and no atrophic mucosal areas. Therefore, *Helicobacter pylori* infection was not suspected. Two small lesions <2 mm in diameter and located <1 cm apart were observed in the fornix. Both lesions were similar: whitish and flat with poorly defined borders (► **Fig. 1**). A biopsy from the anterior-sided lesion was diagnosed as gastric adenocarcinoma of the fundic gland type.

Endoscopic submucosal dissection was performed. The two closely located lesions were resected and included in a single surgical specimen (► **Video 1**). Histopathologically, carcinoma mimicking normal fundic glands with a pale basophilic cytoplasm and nuclei located basally infiltrated the deep layer of the lamina propria and had irregular branching structures (► **Fig. 2**). The lesions had diffuse positivity for MUC6, focal positivity for H⁺/K⁺-ATPase, and negativity for MUC2, MUC5AC, CD10, and pepsinogen I. Both lesions were diagnosed as adenocarcinomas of the fundic gland type. The

► **Video 1** The two closely located lesions were resected and included in a single surgical specimen.

► **Fig. 2** Endoscopically resected specimens. The anterior-sided lesion was 1.6 mm in diameter and the posterior-sided lesion 1.3 mm. Carcinoma mimicking normal fundic glands infiltrated the deep layer of the lamina propria; hematoxylin and eosin staining.

patient did not present subsequent recurrence after 2 years.

Gastric adenocarcinoma of the fundic gland type, a novel entity of gastric adenocarcinoma proposed by Ueyama et al. [1], is commonly observed in elderly individuals and is located in the upper third of the stomach. It originates from the deep part of normal fundic glands without atrophy [2]. Most are solitary lesions; only three cases of multiple lesions have been reported thus far [3–5]. To the best of our knowledge, this is the first case of multiple such lesions located close enough to be endoscopically resected en masse. Multiple gastric adenocarcinomas of this type can arise extremely close together. Thus, the adjacent mucosa must be comprehensively examined before endoscopic treatment to prevent overlooking lesions, which may lead to the extent of resection being improper.

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Competing interests

The authors declare that they have no conflict of interest.

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