A rare cause of gastric outlet obstruction: gastritis cystica profunda accompanied by adenocarcinoma

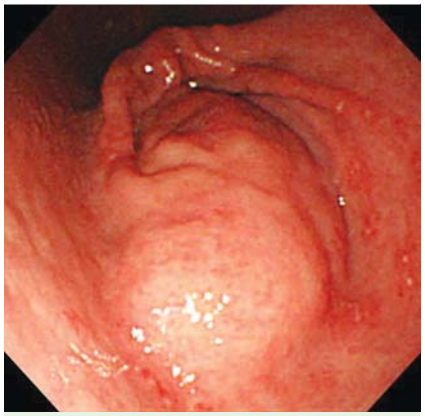

Fig. 1 Gastrointestinal endoscopy showed a 7-cm submucosal tumor in the prepyloric region leading to gastric outlet obstruction, in a 51-year-old woman without previous history of gastric surgery experiencing repeated episodes of vomiting.

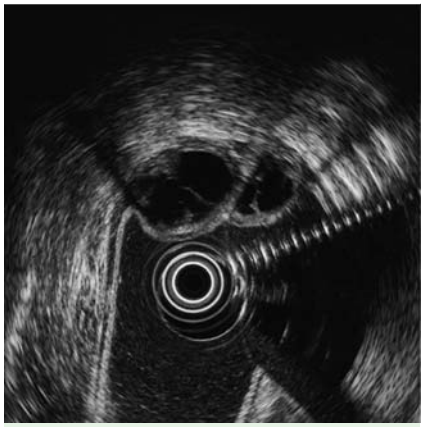

Fig. 2 Endoscopic ultrasonography showing a multicystic mass in the submucosal layer.

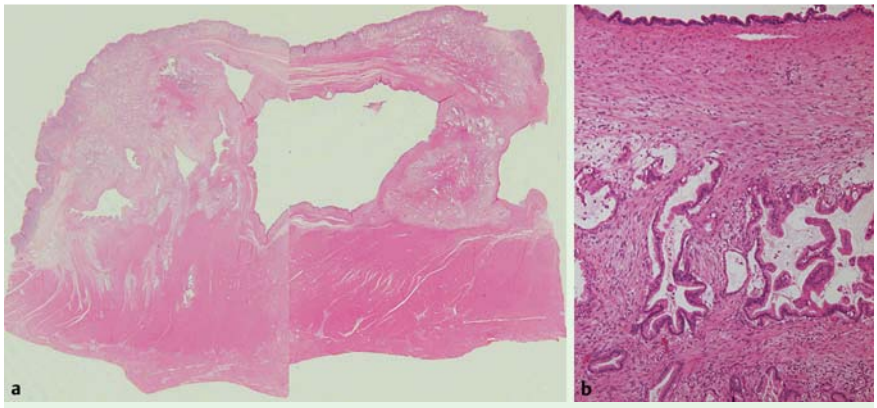

Fig. 3 Histopathologic evaluation revealed the cyst epithelium was partially proliferating in a papillary manner and the solid portion consisted of proliferating papillary and tubular atypical cells. Histopathologic findings indicated the continuous recruitment of carcinoma cells from the gastric epithelium lining the cyst. (**a**: hematoxylin and eosin, magnification × loupe, **b**: hematoxylin and eosin, magnification ×40).

A 51-year-old woman without previous history of gastric surgery presented with repeated episodes of vomiting over the past several days. Gastrointestinal endoscopy revealed a gastric outlet obstruction caused by a 7-cm submucosal tumor in the prepyloric region (**Fig. 1**).

Computed tomography and ultrasonography revealed a mass comprising several cysts, the largest of which was 6 cm in diameter. These examinations did not show any solid areas or the wall thickness of the cysts. Endoscopic ultrasonography revealed a multicystic mass in the submucosal layer (**Fig. 2**).

Endoscopic ultrasound-guided fine-needle aspiration of the largest cyst produced serous fluid. Analysis of the aspirated fluid showed: CA19 – 9 4.7×10^6 U/mL, carcinogenic embryonic antigen 23×10^3 U/mL, amylase 3 IU/l, and no lipase (0 IU/L). A distal gastrectomy was carried out and macroscopic evaluation of the resected stomach revealed a large cyst with a solid portion and adjacent smaller cysts. Microscopically, the cysts were lined by MUC5AC-positive epithelium, which was partially proliferating in a papillary manner; the solid portion comprised proliferative MUC5AC-positive atypical cells infiltrating the subserous layer (**Fig. 3**).

The lesion was identified as an adenocarcinoma arising from gastritis cystica profunda (GCP).

GCP is an uncommon disease characterized histopathologically by elongation of the gastric foveolae, with hyperplasia and cystic dilation of the gastric glands, extending into the submucosal layer [1,2]. GCP usually occurs at the anastomosis site of a gastrectomy [3], but in recent years, rare cases of GCP in an unoperated stomach have been reported [4]. Because hyperplastic changes in GCP can subsequently progress to carcinoma, it is considered a premalignant condition [3,5]. This is the first case report of a large GCP associated with an adenocarcinoma causing gastric outlet obstruction in an unoperated stomach. It shows that a multicystic mass in the gastric submucosa may be GCP even in an unoperated stomach, and the diagnosis should be confirmed by histological examination because GCP is a precancerous lesion.

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Competing interests: None

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Bibliography

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