# Pyloric gland adenoma in the duodenal bulb: case report of a giant laterally spreading tumor treated with endoscopic submucosal dissection

A 55-year-old man underwent gastroduodenoscopy because of epigastric pain. Abdominal computed tomography revealed a uniformly enhanced mass (10×8 mm) within the duodenum, with no enlargement of lymph nodes (> Fig. 1). A laterally spreading tumor, with a diameter of about 60 mm, was detected within the duodenal bulb (> Fig. 2). The lesion involved the pylorus ring and had a positive lifting sign. Considering the difficulty of endoscopic resection of such a giant lesion in the duodenal bulb, surgical resection was proposed, but the patient refused. Therefore, a standard endoscopic submucosal dissection was performed (► Video 1). Grossly, the resected tissue measured 60×50 mm (▶ Fig. 3). The pathological examination revealed pyloric gland adenoma accompanied by some regional high grade intraepithelial neoplasia ( Fig. 4). The lateral and vertical margins of the specimen were negative. No complications occurred during the procedure.

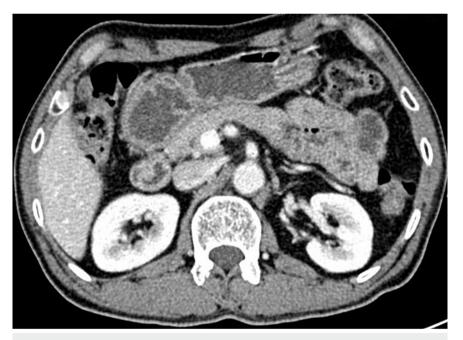
year later showed no significant abnormalities in the duodenal bulb (▶ Fig. 5). Pyloric gland adenoma (PGA) is a rare neoplasm, composed of tightly packed tubules (occasionally cystic dilation) with pyloric gland differentiation, which mainly occurs in the stomach [1]. Since the first description of PGA by Elster in 1976, few PGAs have been documented to originate from the duodenum [2,3] and other extragastric sites; in addition, most reported PGAs have been <25mm [4]. Nowadays, PGA is a recognized precancerous disease, with a reported rate of association with adenocarcinoma ranging from 12% to 47% [5]. The risk of developing adenocarcinoma is associated with its size and the presence of high grade dysplasia [4]. Therefore, endoscopic removal of PGA is indicated. In our report, a rare giant duodenal PGA was described and

A repeat gastroduodenoscopy about 1





▶ Video 1 Endoscopic submucosal dissection of a large laterally spreading pyloric gland adenoma in the duodenal bulb.

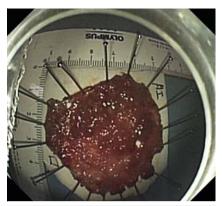


▶ Fig. 1 Abdominal computed tomography revealed a uniformly enhanced mass within the duodenum, without enlargement of lymph nodes.

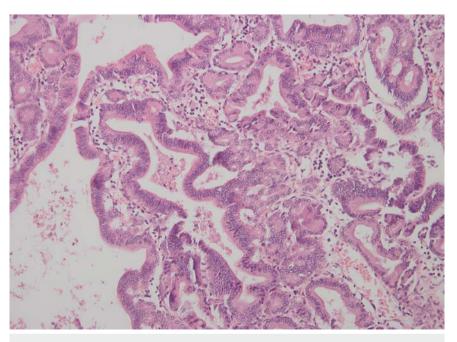
successfully treated with endoscopic Endoscopy\_UCTN\_Code\_CCL\_1AB\_2AZ\_3AB submucosal dissection.



► **Fig. 2** A laterally spreading tumor in the duodenal bulb.



► **Fig.3** The resected tumor was 60×50 mm in diameter.



▶ Fig. 4 Histological examination revealed closely packed pyloric gland-type glands made up of cuboidal to columnar epithelial cells with pale to eosinophilic cytoplasm (hematoxylin and eosin, ×200).



► Fig. 5 Repeat gastroduodenoscopy 1 year later showed no significant abnormalities in the duodenal bulb.

# Competing interests

None

### The authors

Qi-Shan Zeng<sup>\*</sup>, Lian-Song Ye<sup>\*</sup>, Chun-Cheng Wu, Jian-Rong Liu, Qiong-Ying Zhang, Shuai Bai, Bing Hu

Department of Gastroenterology, West China Hospital, Sichuan University, Chengdu, China

# Corresponding author

#### Bing Hu, MD

Department of Gastroenterology, West China Hospital, Sichuan University, No. 37 Guo Xue Xiang, Chengdu, Sichuan, 610041, P.R. China

Fax: +86-28-85423387 hubingnj@163.com

#### References

- [1] Pezhouh MK, Park JY. Gastric pyloric gland adenoma. Arch Pathol Lab Med 2015; 139: 823 – 826
- [2] Kushima R, Rüthlein HJ, Stolte M et al. "Pyloric gland-type adenoma" arising in heterotopic gastric mucosa of the duodenum, with dysplastic progression of the gastric type. Virchows Arch 1999; 435: 452 – 457
- [3] Poeschl EM, Siebert F, Vieth M et al. Pyloric gland adenoma arising in gastric heterotopia within the duodenal bulb. Endoscopy 2011; 43 (Suppl. 02): E336 – 337
- [4] Vieth M, Kushima R, Borchard F et al. Pyloric gland adenoma: a clinico-pathological analysis of 90 cases. Virchows Arch 2003; 442: 317 – 321
- [5] Vieth M, Kushima R, Mukaisho K et al. Immunohistochemical analysis of pyloric gland adenomas using a series of Mucin 2, Mucin 5AC, Mucin 6, CD10, Ki67 and p53. Virchows Arch 2010; 457: 529 536

## Bibliography

DOI https://doi.org/10.1055/a-0862-0098 Published online: 13.3.2019 Endoscopy 2019; 51: E130–E131 © Georg Thieme Verlag KG Stuttgart · New York ISSN 0013-726X

# ENDOSCOPY E-VIDEOS https://eref.thieme.de/e-videos



Endoscopy E-Videos is a free access online section, reporting on interesting cases and new

techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online.

This section has its own submission website at

https://mc.manuscriptcentral.com/e-videos

<sup>\*</sup> These authors contributed equally to this work.