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DOI: 10.17235/reed.2023.9535/2023
Link: PubMed (Epub ahead of print)

Please cite this article as:

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CC 9535

Endoloop pre-ligation assisted resection of a giant Brunner’s gland adenoma of the duodenal bulb

Li-yang Wang¹, Qiu-ling Lin², Li-sheng Wang¹, Sheng-gang Zhan¹, Feng Xiong¹, Ding-guo Zhang¹

Departments of ¹Gastroenterology and ²General Practice. Shenzhen People’s Hospital, the First Affiliated Hospital of Southern University of Science and Technology. The Second Clinical Medical College of Jinan University. Shenzhen, China

Li-yang Wang and Qiu-ling Lin contributed equally to this study.

Conflict of interest: the authors declare no conflict of interest.

Keywords: Brunner Glands. Adenoma. Endoloop ligation. Polypectomy. Resection.

Correspondence: Ding-guo Zhang
e-mail: zdg8012@sina.com

Dear Editor,
A 62-year-old male was admitted to the hospital due to repeated abdominal distension for more than ten years. Gastroscopy examination found a large protuberant lesion on the anterior wall of the duodenal bulb (Fig. 1A) but the origin level of the protuberant lesion could not be determined due to the narrow space in the spherical cavity (Fig. 1B). Endoscopic ultrasound showed low echo focus in the bulb eminence of the duodenum and the preoperative diagnosis was duodenal Brunner’s gland adenoma.

To complete the resection, a transparent cap (MH 597, Olympus, outer diameter 17.2 mm) was installed at the end of the gastric lens. The endoloop (MAJ-340, Olympus, outer ring diameter 20 mm) was placed in the transparent cap (Fig. 1C).
The external placement method of the endoloop was used to ligate some of the lesions to make the lesion smaller. The gravity of the endoloop made the lesions clearly exposed. The lesion was then completely removed by polypectomy (Fig. 1D). The size of the lesion was 50 to 25 mm (Fig. 1E). The postoperative pathological analysis confirmed the diagnosis of Brunner’s gland adenoma (Fig. 1F). The patient recovered well and was discharged two days after surgery.

Discussion

The Brunner gland adenoma (BGA) is a rare benign duodenal tumor that proliferates from the Brunner glands of the duodenum (1). When they reach giant dimensions, they can obstruct the gastric outlet or duodenum, requiring surgery or endoscopic resection.

Treatment can be different according to size, symptoms and suspicion of malignancy. Endoscopic resection is currently the preferred treatment due to endoscopic resection technology and the corresponding attachment improvements (2). However, when the lesion is large and located in the duodenal bulb, it is a challenge for endoscopists due to the small operating space. We used the endoloop pre-ligation method to complete endoscopic resection without complications. To our knowledge, this is the first case report of a giant Brunner’s gland adenoma of the duodenal bulb successfully removed using an endoloop pre-ligation assisted method. In conclusion, endoscopic endoloop pre-ligation assisted resection is an effective treatment method with an excellent outcome for giant duodenal Brunner’s gland adenoma.

References

Fig. 1. A. Endoscopic view of a large protuberant lesion on the anterior wall of the duodenal bulb, but the integral lesion could not be observed directly. B. Endoscopic ultrasound showed the low echo focus at the bulb eminence of the duodenum. C. A transparent cap was installed at the end of the gastric lens, and the endoloop was placed in the transparent cap. D. Endoscopic view of the wound immediately after resection. E. The lesion size was 50 mm to 25 mm. F. Postoperative histological examination showed Brunner’s gland adenoma (x 100).