



Endoscopic submucosal dissection of a large pedunculated gastric polyp causing gastric outlet obstruction using clip-snare traction technique

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A patient presented for evaluation with a 6-month history of postprandial abdominal pain, bloating, and dysphagia. A CT scan of the chest and abdomen demonstrated a large gastric cardia mass, without evidence of metastatic disease or adenopathy (Fig. 1).

On endoscopy, a large gastric cardia polyp with a thick stalk was seen, which had prolapsed into the duodenum. The polyp spontaneously retracted back to the stomach; because of the bulky nature of the polyp, its attachment to the gastric wall could not be clearly discerned (Fig. 2). On EUS, the muscularis propria layer appeared intact, with the polyp and stalk noted to be arising from the submucosal layer with significant vascularity (Fig. 3). Biopsy specimens revealed a pyloric gland adenoma with low-grade dysplasia.

A multidisciplinary tumor board recommended endoscopic submucosal dissection (ESD) of the polyp. ESD was chosen for 3 main reasons: attempting to place a snare around a giant polyp would be technically challenging, ESD would allow for coagulation of blood ves-

sels to reduce bleeding, and ESD would ensure en bloc resection given potential malignancy within the lesion. The clip-snare method was chosen for retraction of the polyp.

A standard hemostatic clip (Duraclip; Conmed, Utica, NY, USA) was passed through the endoscope channel, and the clip was used to grasp the wire loop of a standard 10-mm snare (Captivator; Boston Scientific, Marlborough, Mass, USA). The hemostatic clip was withdrawn into the endoscope channel, and the endoscope was passed into the stomach with the sheath of the snare running alongside the shaft of the endoscope. The polyp was grasped with the hemostatic clip, the clip was deployed, and the snare was advanced toward the antrum of the stomach to expose the broad base of the polyp. The stalk was injected with a viscous submucosal lifting agent (Orise gel; Boston Scientific) and dilute epinephrine.

Submucosal dissection was performed with both an insulated tip knife (IT knife; Olympus, Tokyo, Japan) and needle type knife (DualKnife; Olympus). Submucosal vessels were treated with coagulation forceps. First, the medial aspect of the stalk was dissected, then the lateral aspect of the stalk, and finally the central submucosal attachment. Complete en bloc resection was achieved (Fig. 4).

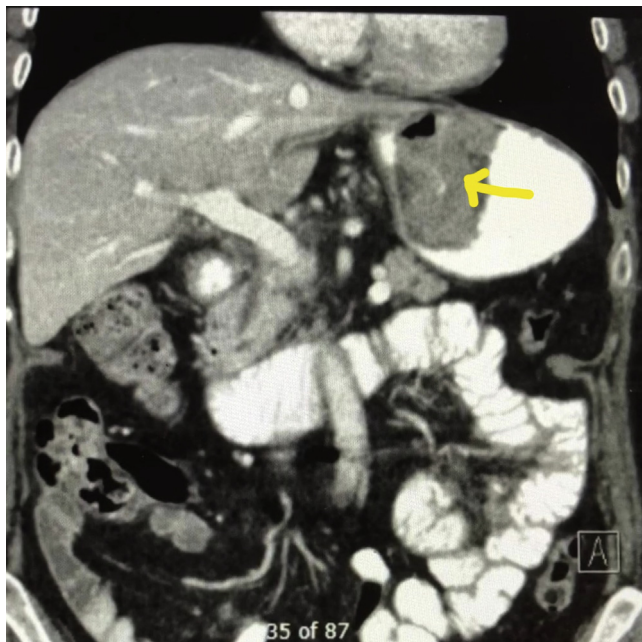


Figure 1. CT view of the abdomen demonstrating a large gastric cardia mass.

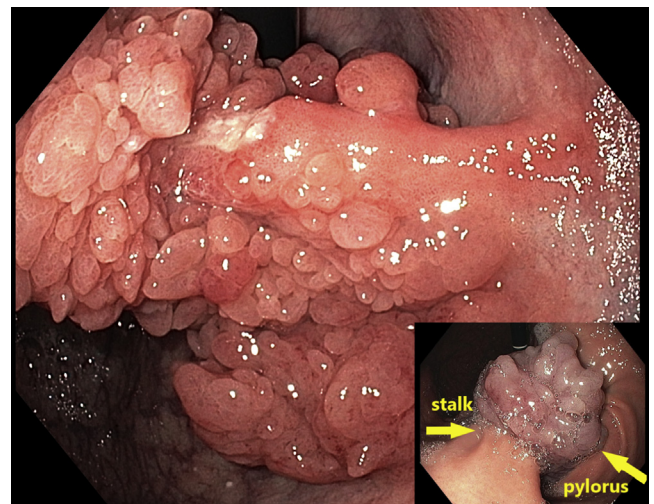


Figure 2. Endoscopic view of the large pedunculated gastric cardia polyp.

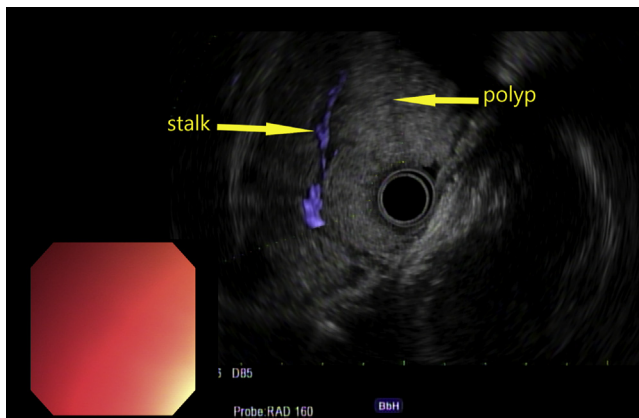


Figure 3. EUS image of the polyp stalk arising from the submucosal layer, with Doppler flow indicating significant vascularity in the polyp stalk.

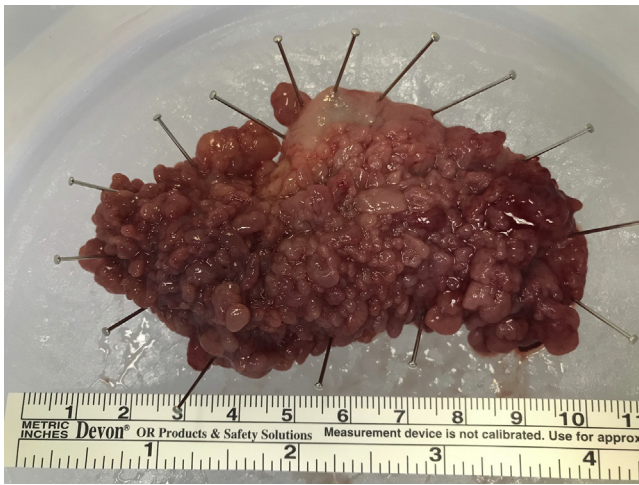


Figure 4. Image of resected polyp gross specimen.

An endoscopic net retriever device (Roth net; US Endoscopy, Mentor, Ohio, USA) and an esophageal overtube (Guardus; US Endoscopy) were used to retrieve the polyp specimen. Given the difficult location for closure of the ESD defect in the cardia and the potential to excessively increase procedure duration, defect closure was not performed. After the procedure, the patient had an uneventful overnight hospital stay. Final polyp pathology revealed a 10-cm pyloric gland adenoma without high-grade dysplasia (Fig. 5).

In conclusion, this large pedunculated gastric cardia polyp was successfully resected using ESD with the clip-snare method. This technique ensured en bloc resection

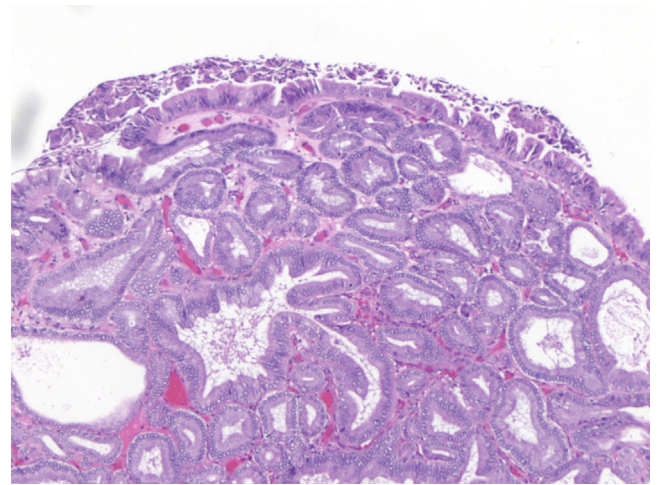


Figure 5. Pathology image of high-magnification view of resected pyloric gland adenoma.

and adequate visualization and coagulation of submucosal vessels. The clip-snare traction technique is conventionally used to expose the submucosal layer during ESD, but it was adapted to enhance adequate visualization of the broad polyp attachment and facilitated successful endoscopic submucosal dissection.¹

DISCLOSURE

Dr Jang is a consultant for Boston Scientific. Dr Bhatt is a consultant Medtronic, Lumendi, and Boston Scientific. All other authors disclosed no financial relationships.

Abbreviation: ESD, endoscopic submucosal dissection.

REFERENCE

1. Tanaka S, Toyonaga T, Kaku H, et al. A novel traction device (EndoTrac) for use during endoscopic submucosal dissection. *Endoscopy* 2019;51:E90-1.

Cleveland Clinic, Cleveland, Ohio.

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