Successful ESD of a gastric hamartomatous inverted polyp intussuscepted into a pylorus ring using a clip with a line attachment prior to incision

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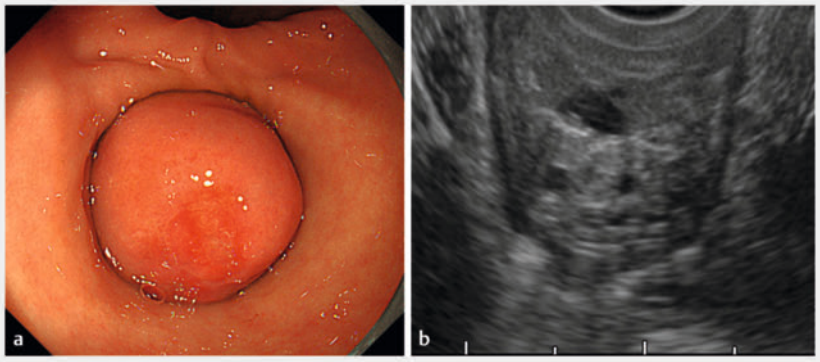
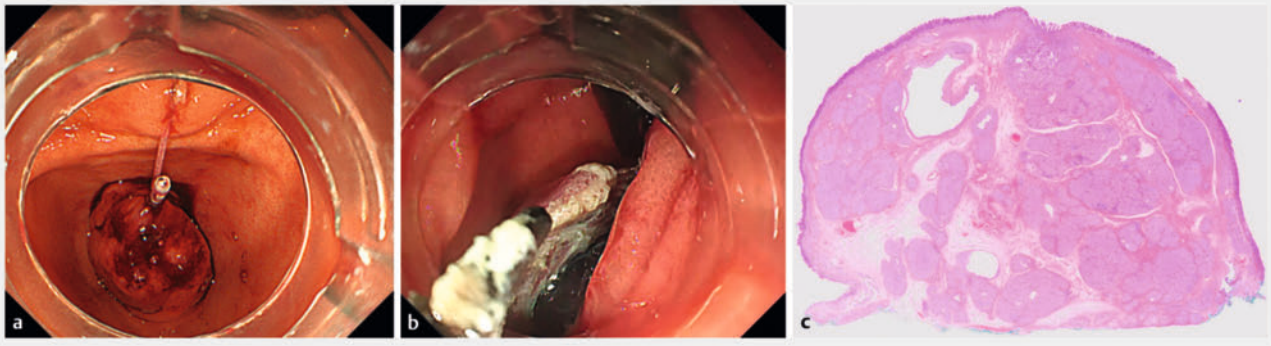


▶ **Fig. 1** Showing esophagogastroduodenoscopy and endoscopic ultrasonography. **a** A huge submucosal tumor arising from the greater curvature of the pylorus ring and duodenal bulb was intussuscepted into a pylorus ring, and the lesion was retracted into the stomach. **b** A heterogeneous lesion in the third layer of the gastric wall with variable cystic components.

Although various endoscopic and surgical resections for a gastric hamartomatous inverted polyp (GHIP) have recently been reported [1, 2, 3], indications for the choice of resection method have not been established because it is a rare form of gastric polyp. The usefulness of a clip with a line attachment prior to incision for endoscopic submucosal dissection (ESD) has recently been reported [4, 5]. Here we report successful endoscopic resection of a huge GHIP easily intussuscepted into a pylorus ring using a clip with a line attachment prior to incision.

A 24-year-old woman presented for black stool (hemoglobin level of 9.9 g/dL). Esophagogastroduodenoscopy showed that a huge submucosal tumor (SMT) arising from the greater curvature of the pylorus ring and duodenal bulb was intussuscepted into a pylorus ring, and the lesion was retracted into the stomach (▶ **Fig. 1a**). Endoscopic ultrasonography showed a heterogeneous lesion in the third layer of the gastric wall with variable cystic components (▶ **Fig. 1b**). For a definitive diagnosis and treatment of this SMT, ESD was performed because distal gastrectomy is invasive.

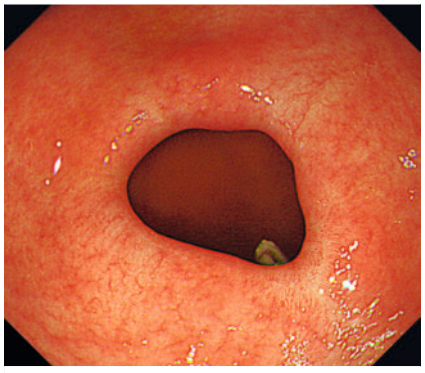
The lesion was intussuscepted into a pylorus ring before starting ESD. First, a clip with a line was attached to the top of it, and powerful traction was applied to it prior to incision for ESD. Next, it was pulled back into the stomach using a clip with a line and grasping forceps (▶ **Fig. 2a**). Because it was kept in the stomach, a mucosal incision was easily made in the anal side of it in retroflex view of the duodenal bulb (▶ **Fig. 2b**). We easily made a mucosal incision and dissection was performed with the lesion kept in the stomach using a clip with a line in a forward view. Finally, it was removed. Histological examination revealed GHIP with negative resection margins (▶ **Fig. 2c**, ▶ **Video 1**). The patient's symptoms disappeared and her anemia improved after ESD. After about 3 months, her ulcer was completely cured and there was no stenosis at the pyloric ring (▶ **Fig. 3a**).



▶ **Fig. 2** Successful endoscopic resection of a huge GHIP. **a** It was pulled back into the stomach using a clip with a line and grasping forceps. **b** Because it was kept in the stomach, a mucosal incision was easily made in the anal side of it in retroflex view of the duodenal bulb. **c** Histological examination revealed GHIP with negative resection margins.

VIDEO

▶ **Video 1** Successful endoscopic resection of a huge gastric hamartomatous inverted polyp easily intussuscepted into a pylorus ring using a clip with a line attachment prior to incision.



▶ **Fig. 3** Follow-up endoscopy. After about 3 months, the ulcer was completely cured and there was no stenosis at the pyloric ring.

Conflict of Interest

The authors declare that they have no conflict of interest.

The authors

Satoshi Abiko[1], Koji Hirata[1], Kazuharu Suzuki[1], Kenji Kinoshita[1], Kazuteru Hatanaka[1], Yoshiya Yamamoto[1], Hirohito Naruse[1]

1 Department of Gastroenterology and Hepatology, Hakodate Municipal Hospital, Hakodate, Japan

Corresponding author

Dr. Satoshi Abiko
Hakodate Municipal Hospital, Department of Gastroenterology and Hepatology, 10-Ban 1-Gou 1-Chome Minato-chou , 041-8680 Hakodate, Japan
abiko1982@gmail.com

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