Guidewire-assisted piecemeal resection of a giant gastric tumor

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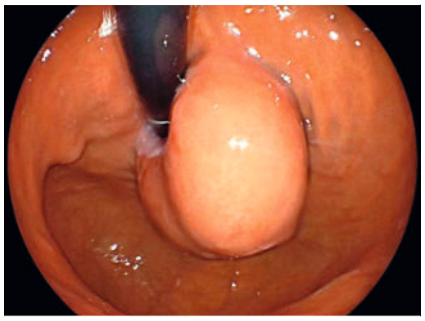
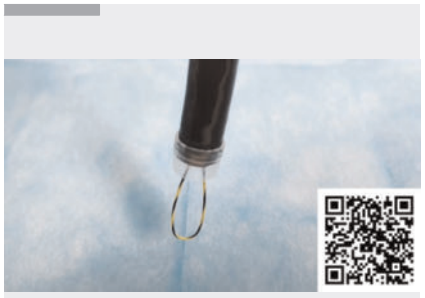
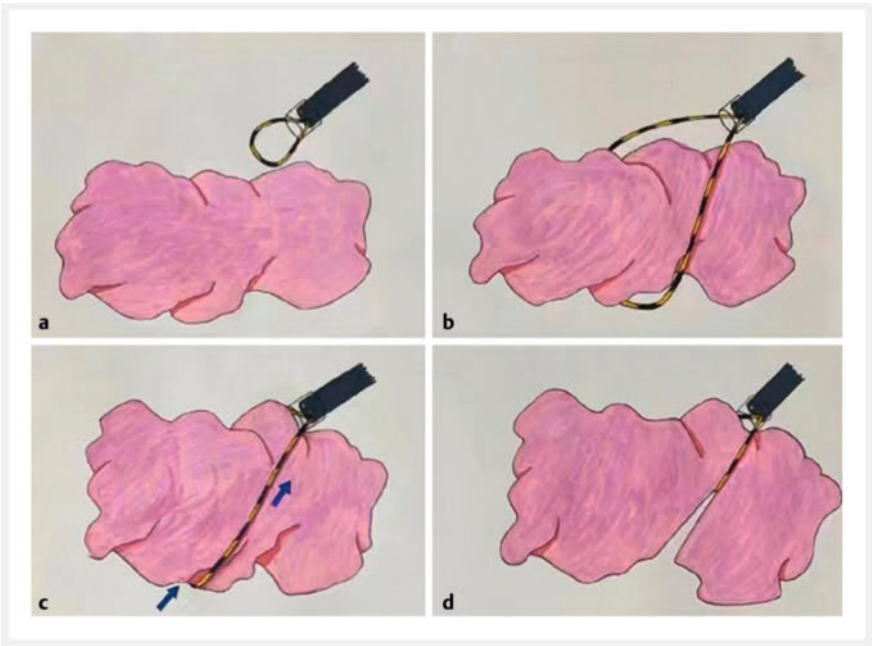


▶ **Fig. 1** A large subepithelial lesion located at the gastroesophageal junction, presenting a "horseshoe" morphology.



Video 1 Guidewire-assisted piecemeal resection of a giant gastric tumor.

▶ **Fig. 2** A new slicing device with guidewire.



▶ **Fig. 3** **a** Following endoscopic submucosal resection, a sizable mass was observed within the gastric cavity, necessitating the repositioning of the guidewire-assisted piecemeal resection device. **b** Within the confines of direct visual examination, the hemispherical guidewire, situated at the anterior endoscope, can be deftly adjusted to accommodate the tumor's encircled waist. **c** As the guidewire exterior to the endoscope's working channel was grasped and drawn taut, the semicircular snare positioned at the forefront of the guidewire was gently maneuvered towards the anterior extremity of the transparent cap. **d** The tumors underwent an adroitly executed, precise cold cutting procedure, resulting in their methodical segmentation into distinct fragments.

A 55-year-old woman underwent esophagogastroduodenoscopy, which revealed a large subepithelial lesion located at the gastroesophageal junction, presenting a "horseshoe" morphology (▶ **Fig. 1**). A subsequent computed tomography (CT) scan and endoscopic ultrasonography indicated the lesion was a solid mass protruding into the lumen. The patient then underwent endoscopic submucosal resection, resulting in complete excision of the lesion. Due to the considerable size of the tumor, traditional snare-based extraction was unfeasible. Therefore, an innovative slicing technique was employed (▶ **Video 1**).

To implement this technique, a transparent cap was affixed to the distal end of the endoscope. A guidewire, ingeniously shaped into a semicircle (▶ **Fig. 2**), was inserted into the working channel. Under direct visualization, the waist of the tumor was ensnared and repositioned anteriorly, aligned with the transparent cap. The guidewire was then meticulously retracted, enabling precise cold cutting of the tumor (▶ **Fig. 3**). This process was iteratively executed, allowing sequential removal of divided tumor fragments (▶ **Fig. 4**). Subsequent histopathological analysis confirmed a leiomyoma.

This technique, while previously reported for disintegration of robust and oversized gastric bezoars [1], had not found prior application for excision of sizable, non-extractable gastric masses. With the development of endoscopic excision

▶ **Fig. 4** The specimen was methodically extracted in segmented portions, measuring approximately 10 centimeters in length.

techniques, comprehensive resection of enormous gastric leiomyomas is now achievable [2, 3]. However, to prevent and manage post-resection intestinal obstruction from tumor migration and obtain definitive histopathological diagnosis, guidewire-assisted cold cutting emerges as an efficacious approach.

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Conflict of Interest

The authors declare that they have no conflict of interest.

The authors

Jixiang Ao[1], Silin Huang[1], Suhuan Liao[1], Longbin Huang[1], Erzhen Zhong[1], Pengcheng Zhao[1], Dongfang Wang[1]

1 Department of Gastroenterology, South China Hospital, Medical School, Shenzhen University, Shenzhen, China

Corresponding author

Silin Huang, MD
Department of Gastroenterology, South China Hospital, Medical School, Shenzhen University, P. R. China
silinhuang@szu.edu.cn

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