A novel endoscopic treatment for giant gastric bezoars: guidewire-based seesaw-type fragmentation using a specific bezoaratom kit

Although gastrointestinal endoscopy is the routine treatment for small gastric bezoars [1], management of massive bezoars is always difficult even with a specific lithotripter [2], electrohydraulic lithotripsy [3] or laser fragmentation [4]. At present, surgery is the remedy treatment for such massive bezoars. However, contamination of the peritoneal cavity and remnant bezoars are major problems in surgical treatment [5]. To solve these problems, we established a novel endoscopic guidewire-based seesaw-type lithotripsy of massive gastric bezoars using a specific bezoaratom kit (▶ Fig.1, ▶ Video 1).

The patient was a 70-year-old woman with a history of epigastric pain, nausea, and vomiting over 3 months. The gastrointestinal endoscopy revealed a giant yellowish bezoar, 10 cm in diameter, in the gastric corpus (▶ Fig.2a). The giant gastric bezoar was subjected to the novel endoscopic seesaw-type fragmentation with a specific bezoaratom kit.

The guidewire was folded and inserted into the stomach. Under endoscopic guidance, after the giant bezoar was successfully trapped by the guidewire, the lithotripter sheath was introduced to tightly hold the bezoar (▶ Fig.2b). Through several seesaw-type motions of the guidewire and counter movements of the sheath, the giant bezoar was successfully cut into small pieces (▶ Fig.2c) and then extracted using a string bag (▶ Fig.2d). Complete extraction of the bezoar was achieved in a single endoscopy session (▶ Fig.2e) without any damage to the gastric mucosa (▶ Fig.2f). The total procedure time was only 20 minutes and no post-procedural complications were registered.

In this case, we applied guidewire-based seesaw-type lithotripsy using a specific bezoaratom kit to completely remove a giant bezoar. This novel strategy is very safe and effective to break up the bezoar in a short time, is generally economic as it uses regular instruments, and can be easily manipulated by nonexperienced endoscopists.

Competing interests

None

Endoscopy_UCTN_Code_TTT_1AO_2AL
**The authors**

Xiao Hu1,2,*  Ren-yi Zhang1,2,*  Wei-hui Liu1,2  

1 Department of Gastroenterology and Hepatology, Sichuan Academy of Medical Sciences and Sichuan Provincial People’s Hospital, Chengdu, China  
2 School of Medicine, University of Electronic Science and Technology of China, Chengdu, China  

**Corresponding author**

Wei-hui Liu, MD  
Department of Gastroenterology and Hepatology, Sichuan Academy of Medical Sciences and Sichuan Provincial People’s Hospital, 32 First Ring Road, Chengdu, Sichuan Province 610072, China  
Fax: +86-28-86571251  
audiliu12@163.com  

* These authors contributed equally to this work.

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**References**


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DOI https://doi.org/10.1055/a-0982-2661  
Published online: 2019  
Endoscopy  
© Georg Thieme Verlag KG  
Stuttgart · New York  
ISSN 0013-726X

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