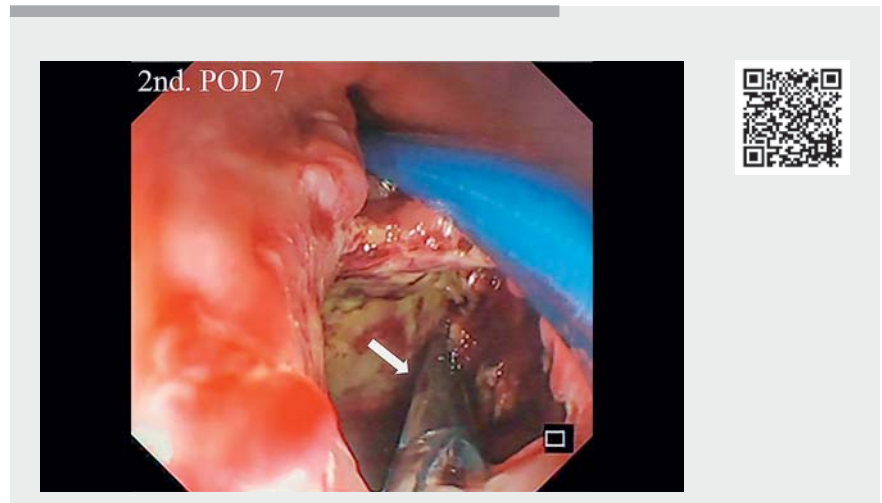


## Management of an esophagopleural fistula after resection of giant submucosal tumor of the cardia

OPEN  
ACCESS

A 24-year-old woman was admitted with a large mass derived from the muscularis propria of the esophagus and the cardia. Submucosal tunneling endoscopic resection was performed. The size of the specimen was 10×10cm, and the postoperative pathology was leiomyoma with red degeneration. After the tumor was removed, a huge tunnel cavity was left. We used metal clips to clamp the tunnel entrance (▶ **Video 1**).

On postoperative Day (POD) 4, the patient presented chest tightness and shortness of breath. Computed tomography (CT) examination showed the formation of an esophagopleural fistula. The second gastroscopy (POD 7) revealed an esophageal fistula with 1.0 cm mucosal defect at the lower esophagus (▶ **Fig. 1 a, b**). After entering the thoracic cavity through the esophageal fistula, the necrotic tissue was cleaned and a gastric tube was placed into the cavity for drainage through the esophageal mucosal defect (▶ **Fig. 1 c**). The third gastroscopy (POD 11) showed that the residual cavity was obviously smaller than before drainage (▶ **Fig. 2 a**). On POD 22, gastroscopy revealed that the esophageal wounds near the cardia had



▶ **Video 1** A gastric tube (arrow) was inserted into the cavity for drainage through the esophageal mucosal defect during the second and third gastroscopies. The esophageal wounds had almost healed by postoperative Day 22.

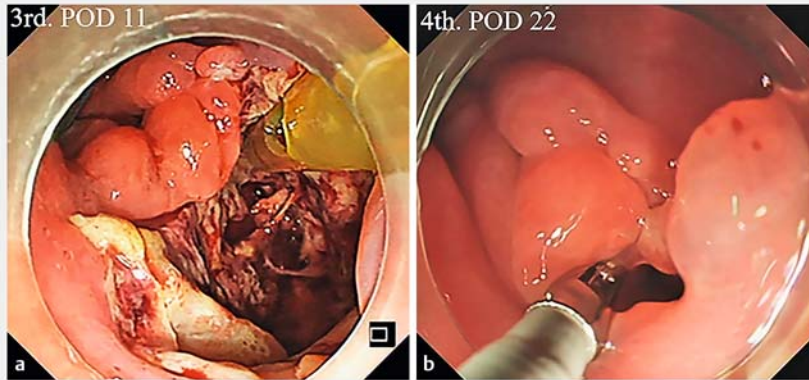
almost healed (▶ **Fig. 2 b**), and CT showed that pleural effusion and atelectasis had improved markedly. The patient started drinking liquids 2 days later and was discharged the next day. For the huge cavities left after endoscopic resection of large tumors or those caused by postoperative fistula, we can perform

prophylactic drainage by placing a tube through the tunnel mouth, and applying negative pressure suction to keep the cavity closed and to drain the effusion, in order to facilitate wound healing.

Endoscopy\_UCTN\_Code\_CPL\_1AH\_2AG



▶ **Fig. 1** The second gastroscopy on postoperative Day 7. **a** An esophageal fistula with 1.0 cm mucosal defect was seen at the lower esophagus. **b** Fresh granulation tissue and some necrotic tissues were seen in the residual cavity. **c** A gastric tube (arrow) was placed into the cavity for drainage through the esophageal mucosal defect.



► **Fig. 2** The third and fourth gastroscopies. **a** The third gastroscopy showed that the residual cavity was obviously smaller than before drainage. **b** The fourth gastroscopy showed that the esophageal wounds near the cardia were almost healed.

### Competing interests

The authors declare that they have no conflict of interest.

### Funding

Youth Foundation of Zhongshan Hospital, Fudan University  
2020ZSQN16

National Key R&D Program of China  
2019YFC1315800

Yangfan Program of Shanghai Municipal Science and Technology Committee  
S2020-016

National Natural Science Foundation of China  
<http://dx.doi.org/10.13039/501100001809>  
82000507

### The authors

**Zu-Qiang Liu<sup>1\*</sup>, Li Wang<sup>1\*</sup>, Jing-Zheng Liu<sup>1</sup>, Zhi-Peng Qi<sup>1</sup>, Quan-Lin Li<sup>1,2</sup>, Ping-Hong Zhou<sup>1,2</sup>**

- 1 Endoscopy Center and Endoscopy Research Institute, Zhongshan Hospital, Fudan University, Shanghai, China
- 2 Shanghai Collaborative Innovation Center of Endoscopy, Shanghai, China

### Corresponding author

**Ping-Hong Zhou, MD**  
Endoscopy Center and Endoscopy Research Institute, Zhongshan Hospital, Fudan University, 180 Fenglin Road, Shanghai 200032, China  
[zhou.pinghong@zs-hospital.sh.cn](mailto:zhou.pinghong@zs-hospital.sh.cn)

### Bibliography

Endoscopy 2022; 54: E979–E980  
DOI 10.1055/a-1881-3793  
ISSN 0013-726X  
published online 4.8.2022  
© 2022. The Author(s).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany



### ENDOSCOPY E-VIDEOS

<https://eref.thieme.de/e-videos>



*Endoscopy E-Videos* is an open access online section, reporting on interesting cases

and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

This section has its own submission website at <https://mc.manuscriptcentral.com/e-videos>

\* These authors contributed equally to this article.