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 10×10 cm, 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 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.

E-Videos

▶ 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.

▶ 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.
Competing interests
The authors declare that they have no conflict of interest.

Funding
Youth Foundation of Zhongshan Hospital, Fudan University 2020ZQN16
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 Liu1*, Li Wang1*, Jing-Zheng Liu1, Zhi-Peng Qi1, Quan-Lin Li1,2, Ping-Hong Zhou1,2
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

* These authors contributed equally to this article.