Technically simplified peroral endoscopic myotomy: blunt dissection making submucosal tunneling fast and safe

As a primary treatment for patients with achalasia [1], peroral endoscopic myotomy (POEM) is a technically demanding procedure [2]. To perform a high-quality POEM and to prevent complications such as leakages, infections, major bleeding, and gas-related events, the establishment of a submucosal tunnel and the integrity of the mucosal flap are crucial [3, 4]. We present a blunt dissection technique to achieve rapid and safe submucosal tunneling in the aim to build a technically simplified POEM, which we call blunt POEM (▶ Video 1).

A 58-year-old woman suffered from solid food dysphagia and regurgitation. The endoscopy presented two surgical scars (▶ Fig. 1 a, b) and a contraction ring at the lower esophagus (▶ Fig. 1 c). The patient was diagnosed with type II achalasia under barium esophagography (▶ Fig. 1 d) and high resolution esophageal manometry. We decided to perform POEM on the patient. Briefly, a mucosal incision was made on the posterior esophageal wall (▶ Fig. 2 a). Once the endoscope was maneuvered into the submucosal space, the transparent cap was applied to bluntly dissect the fibers and thus establish a submucosal tunnel (▶ Fig. 2 b). The blunt dissection was so efficient that it took only 2 minutes to establish a 10-cm tunnel (▶ Fig. 2 c). After the submucosal tunnel was extended 2 cm into the proximal stomach, the selective inner circular myotomy and full-thickness myotomy were conducted (▶ Fig. 2 d). Finally, the mucosal entry was closed using endoclips (▶ Fig. 2 e). After the procedure, the lower esophageal sphincter (LES) was open and the endoscope smoothly passed the cardia (▶ Fig. 2 f).

The simplest strategy to establish a tunnel is to dissect the submucosal fibers without a knife, and the most effective way to prevent complications is to preserve the intact mucosal flap [5]. In the current method of blunt POEM, we develop...
oped blunt dissection to simultaneously create a safe tunnel and preserve the mucosal flap. Compared with traditional POEM, blunt POEM is more easily maneuverable and less time-consuming for the treatment of achalasia.

Endoscopy_UCTN_Code_TTT_1AO_2AN

Competing interests

The authors declare that they have no conflict of interest.

The authors

Xiao Hu*, Ying-hui Zhang*, Xiao-gang Liu, Sheng-xi Han, Wei-hui Liu
Department of Gastroenterology and Hepatology, Sichuan Academy of Medical Sciences & Sichuan Provincial People’s Hospital, School of Medicine, University of Electronic Science and Technology of China, Chengdu, Sichuan Province, China

Corresponding author

Wei-hui Liu, MD
Department of Gastroenterology and Hepatology, Sichuan Academy of Medical Sciences & Sichuan Provincial People’s Hospital, School of Medicine, University of Electronic Science and Technology of China, Chengdu, Sichuan Province, 610072, China

audiliu12@163.com

References


Bibliography

Endoscopy
DOI 10.1055/a-1532-1759
ISSN 0013-726X
published online 2021
© 2021, Thieme. All rights reserved.
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany