Tube-assisted suction: a novel technique for removing massive food residue during gastroscopy

A 44-year-old man with achalasia was scheduled to undergo peroral endoscopic myotomy for recurrence after Heller myotomy. Massive food residue was observed in the lower esophagus, despite repeated and adequate fasting (▶Fig. 1). Repeated irrigation and suction by the endoscope (GIF-Q260J; Olympus, Tokyo, Japan) failed to remove the food residue. Grasping forceps (basket type, FG-16L-1; Olympus) did not work either. Therefore, tube-assisted suction was performed (▶Video 1).

A soft, plastic tube (outer diameter 5 mm) with several side apertures was tied along the side of the scope. The head of the tube was positioned approximately 3 mm beyond the tip of the scope (▶Fig. 2). The other end of the tube was connected to a vacuum extractor. Then, the scope with the attached tube was inserted smoothly. When the food residue was observed, irrigating and suction were continued until no food residue remained. Eventually, a clear field was achieved (▶Fig. 3).

Patients who undergo endoscopy after gastric surgery usually have some food residue [1–3], similarly to patients with achalasia, which interferes with endoscopic observation and detection of lesions [2]. No specific method has been reported to remove massive food residue during gastroscopy. Patient preparation for the day before the endoscopic procedures is emphasized: sufficient fasting
time (more than 18 hours) [3] and a liquid diet plus gastrokinetic agents (i.e. cisapride, domperidone, and aclatominum napadisilate) [2]. However, attempts to obtain a satisfactory field may still end in failure. Tube-assisted suction is a novel technique to solve this problem. The tube is a common vacuum suction tube that is available in most medical institutions. This technique minimizes discomfort resulted from repeated fasting. Furthermore, use of this simple addition may avoid a delay in emergency endoscopic treatment or having to postpone treatment.

In conclusion, we believe that tube-assisted suction is an effective, simple, and timesaving way for removing massive food residue.

Endoscopy_UCTN_Code_TTT_1AO_2AN

Acknowledgment

This study was funded by Sichuan Province Science and Technology Department (China) (Grant Number: 2017SZ0009).

Competing interests

None

The authors

Xianhui Zeng*, Ping Yan*, Liansong Ye, Linjie Guo, Nianhong Wu, Bing Hu
Department of Gastroenterology, West China Hospital, Sichuan University, Chengdu, China

Corresponding author

Bing Hu, MD
37 Guo Xue Alley, Wu Hou District, Chengdu, Sichuan Province 610041, China
Fax: +86-28-85423387
hubingnj@163.com

References


* These authors contributed equally to this work.

Bibliography

DOI https://doi.org/10.1055/a-0824-6162
Published online: 2019
Endoscopy
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is a free 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.

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

Acknowledgment

This study was funded by Sichuan Province Science and Technology Department (China) (Grant Number: 2017SZ0009).

* These authors contributed equally to this work.