Less invasive than minimally invasive: peroral endoscopic myotomy with a slim scope in the treatment of esophageal achalasia

Peroral endoscopic myotomy (POEM) is an established therapy [1–3]. We describe a new technique for POEM using a slim/pediatric endoscope, which aims to provide a less-invasive approach compared with traditional POEM. A 16-year-old girl was diagnosed with achalasia based on symptoms (dysphagia, regurgitation, 6-kg weight loss over 4 months, Eckardt score of 7), barium swallow showing mildly dilated esophagus with retention of contrast (▶Fig. 1), and manometry demonstrating increased lower esophageal sphincter relaxation pressure of 13.1 mmHg. POEM was initiated using a standard gastroscope. A submucosal cushion was made with succinyl gelatin-methylene blue solution 8.0 cm proximally to the gastroesophageal junction. The endoscope was exchanged for a slim gastroscope (EG-530NW, 5.9 mm external outer diameter, 2.0 mm working channel; Fujifilm, Tokyo, Japan), fitted with a cap cut from the tip of a 5.5 mm endotracheal tube (Solidor; Well Lead Medical Co., Ltd, Guangzhou, China) (▶Fig. 2). A mucosal opening was made with the tip of an oval 13-mm polypectomy snare (Profile Snare; Boston Scientific, Marlborough, Massachusetts, USA), which was also used for the creation of the submucosal tunnel and myotomy (▶Fig. 3a, ▶Video 1). A submucosal tunnel was dissected for 2.0 cm distally to the gastroesophageal junction. When further submucosal injection was needed, we utilized a 22-gauge needle (Injectra; MediGlobe, Achenmühle, Germany) by removing the needle and outer sheath, and using the inner sheath as an injection device. Myotomy was then performed from 2.0 cm below the mucosal opening to the...
end of the submucosal tunnel (Fig. 3b). All steps were done with E-Cut, pure with 90 watts (SS601MCa; WEM, Sao Paulo, Brazil). The mucosal opening was closed using a single endoscopic clip (EzClip; Olympus, Tokyo, Japan) (Fig. 3c). The following day the patient was asymptomatic and was discharged on soft food. At 2 months’ follow-up, her Eckardt score was 1 on a nonrestricted diet.

POEM with a slim gastroscope is a feasible, safe, and effective procedure. The procedure is even less invasive than the standard POEM procedure.

Competing interests

None

The authors

Conrado Antonio Carlos Coelho Conrado1, João Guilherme Guerra2, Claudio Lyoiti Hashimoto3, Marcelo Averbach4, Miguel Arcanjo dos Santos5, Peter Vassilev Draganov6

1 Advanced Endoscopy Unit, Restauração Hospital, Recife, Brazil
2 Advanced Endoscopy Unit, AC Camargo Cancer Center, São Paulo, Brazil
3 Division of Gastroenterology and Hepatology, University of São Paulo, São Paulo, Brazil
4 Division of Proctology at Sirio Libanes Hospital, São Paulo, Brazil
5 Surgical Department Federal University of Pernambuco, Recife, Brazil
6 Advanced Endoscopy at Shands Hospital, Division of Gastroenterology, Hepatology and Nutrition, University of Florida, Gainesville, Florida, United States

Corresponding author

João Guilherme Guerra, MD
Endoscopy Unit – AC Camargo Cancer Center, R. Professor Antonio Prudente 211, Liberdade, São Paulo – SP, CEP 01509-010, Brazil
Fax: +55-11-31479999
joao.guilherme.guerra@gmail.com

References


Bibliography
DOI https://doi.org/10.1055/s-0044-101024
Published online: 16.2.2018
Endoscopy 2018; 50: 550–551
© 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