How to reduce the ecological impact of gastric peroral endoscopic myotomy: a small effort for the environment

It is already common knowledge that endoscopic procedures are responsible for the production of large amounts of waste, mostly owing to the usage of a high number of disposable instruments [1]. Gastric peroral endoscopic myotomy (G-POEM) is a well-known procedure used for the treatment of refractory gastroparesis [2]. Like most submucosal endoscopic procedures, this technique requires the injection of a premixed methylene blue/glycerol solution into the submucosa, in order to raise a mucosal bleb and create the space to make a safe mucosal cut. This step is usually performed with a routine single-use sclerotherapy needle [2]; however, a DualKnife could also be used for the same purpose, allowing the use of one disposable injection needle to be spared.

We report the case of a 31-year-old patient who was suffering from refractory gastroparesis secondary to diabetes mellitus type 1, who was referred to our center for G-POEM treatment. After the ideal mucosal entry site had been identified, we opted to use the DualKnife for the initial injection, as well as during the rest of the procedure (▶ Video 1). This was easily performed without any extra inconvenience or difficulty during the whole endoscopic intervention. This case illustrates that, even if the DualKnife is shorter than the sclerotherapy needle, it can have the same efficacy and performance for submucosal injection as the latter. This approach has multiple advantages as it offers a time-saving during submucosal endoscopy by eliminating an instrument change and, most importantly, it leads to a significant reduction in waste production and the associated ecological footprint of the procedure.

E-Videos

Video 1 A method to reduce the ecological impact of gastric peroral endoscopic myotomy by performing the injection with the DualKnife, rather than with a sclerotherapy needle.

Competing interests

The authors declare that they have no conflict of interest.

The authors

Mariana Figueiredo1, Clara Yzet1, Daniel Grinberg2,3, Thomas Lambin1, Pierre-Jean Cottinet3, Jérôme Rivory1, Mathieu Pioche1,4
1 Gastroenterology and Endoscopy Unit, Pavilion L, Edouard Herriot Hospital, Lyon, France
2 Chirurgie Cardiaque, Edouard Herriot Hospital, Lyon, France
3 Équipe de matériaux et procédés d’élaboration, Institut National des Sciences Appliquées, Lyon, France
4 Inserm U1032, Labtau, Lyon, France

Corresponding author

Mariana Figueiredo, MD
Service hépato-gastroentérologie, Hôpital Edouard Herriot, 5 place d’Arsonval, 69003 Lyon, France
mariana.figueiredo.pro@gmail.com

References


Bibliography

Endoscopy
DOI 10.1055/a-1847-7490
ISSN 0013-726X
published online 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

© 2022. The Author(s).