

## EUS-guided gastroenterostomy in patients with ascites: What lies beneath?



In December 2021, the retrospective analysis by Jahangeer Basha et al was published online, illustrating the feasibility of endoscopic ultrasound-guided gastroenterostomy (EUS-GE) in patients with ascites [1]. Although historically regarded as a contraindication, we agree that EUS-GE can be performed in patients with ascites, provided that it does not interfere with the electrocautery-enhanced lumen apposing metal stent trajectory. However, we feel that several crucial remarks are in order before such an approach is considered in everyday practice.

First, the presence of ascites should direct the endoscopist's attention toward underlying peritoneal metastatic disease, as this may severely affect the clinical success and rate of gastric outlet obstruction (GOO) recurrence following EUS-GE [2]. Peritoneal disease may also increase the risk of downstream enteral obstruction or gastrointestinal dysmotility, and may complicate subsequent rescue surgery. Meticulous revision of pre-procedural cross-sectional imaging should be performed in an effort to rule out underlying obstructive or diffuse peritoneal involvement, which both should be regarded as a contraindication. Second, ascites may increase technical difficulty [3] and also lead to an increased risk of secondary bacterial peritonitis. Although data on antimicrobial prophylaxis are practically non-existent in therapeutic endosonography, a longer course of broad-spectrum antibiotics seems indicated in patients with cirrhosis and ascites undergoing EUS-GE. And last, the authors suggest that this is the first report of EUS-GE in the presence of ascites. In our recently published multicenter analysis, evaluating the outcomes of EUS-GE (n=77) compared to laparoscopic gastroenterostomy, almost one-quarter (n=17) of all patients undergoing EUS-GE had varying degrees of ascites [4]. We do, however, agree that the current authors provide us with a more

in-depth analysis on the pre- and post-procedural precautions required for successful EUS-GE in patients with ascites.

By respecting the aforementioned considerations, we believe that EUS-GE in patients with ascites can indeed be performed safely and effectively [5]. It should, however, prompt a high degree of suspicion about underlying, potentially obstructive, peritoneal disease and a longer course of prophylactic antibiotics may be in order. In general, we should worry less about the ascites itself, yet more about what lurks beneath its surface!

### Competing interests

The authors declare that they have no conflict of interest.

### The authors

**Michiel Bronswijk**<sup>1,2,3</sup>, **Roy L.J. van Wanrooij**<sup>4</sup>, **Giuseppe Vanella**<sup>5</sup>, **Schalk Van der Merwe**<sup>1</sup>

- 1 Department of Gastroenterology and Hepatology, University Hospitals Leuven, KU Leuven, Belgium
- 2 Department of Gastroenterology and Hepatology, Imelda General Hospital, Bonheiden, Belgium
- 3 Imelda Clinical GI Research Center, Bonheiden, Belgium
- 4 Department of Gastroenterology and Hepatology, Amsterdam UMC, Vrije Universiteit Amsterdam, AGEM institute, Amsterdam, The Netherlands
- 5 Pancreatobiliary Endoscopy and Endosonography Division, Pancreas Translational & Clinical Research Center, IRCCS San Raffaele Scientific Institute, Vita-Salute San Raffaele University, Milan, Italy

### Corresponding author

**Michiel Bronswijk, MD**

Department of Gastroenterology and Hepatology, University Hospitals Leuven, KU Leuven, Herestraat 49, 3000 Leuven,

Belgium

Phone: +3215505691

mjh.bronswijk@gmail.com

### References

- [1] Basha J, Lakhtakia S, Yarlagadda R et al. Gastric outlet obstruction with ascites: EUS-guided gastro-enterostomy is feasible. *Endosc Int Open* 2021; 9: E1918–E1923
- [2] Khashab MA, Bukhari M, Baron TH et al. International multicenter comparative trial of endoscopic ultrasonography-guided gastroenterostomy versus surgical gastrojejunostomy for the treatment of malignant gastric outlet obstruction. *Endosc Int Open* 2017; 5: E275–E281
- [3] Kerdsirichairat T, Irani S, Yang J et al. Durability and long-term outcomes of direct EUS-guided gastroenterostomy using lumen-apposing metal stents for gastric outlet obstruction. *Endosc Int Open* 2019; 7: E144–e50
- [4] Bronswijk M, Vanella G, van Malenstein H et al. Laparoscopic versus EUS-guided gastroenterostomy for gastric outlet obstruction: an international multicenter propensity score-matched comparison (with video). *Gastrointest Endosc* 2021; 94: 526–536.e2 5
- [5] Ge PS, Young JY, Dong W et al. EUS-guided gastroenterostomy versus enteral stent placement for palliation of malignant gastric outlet obstruction. *Surg Endosc* 2019; 33: 3404–3411

### Bibliography

*Endosc Int Open* 2022; 10: E294

DOI 10.1055/a-1781-6960

ISSN 2364-3722

© 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

