

Endoscopic ultrasound-guided drainage of a splenic abscess using lumen-apposing metal stent

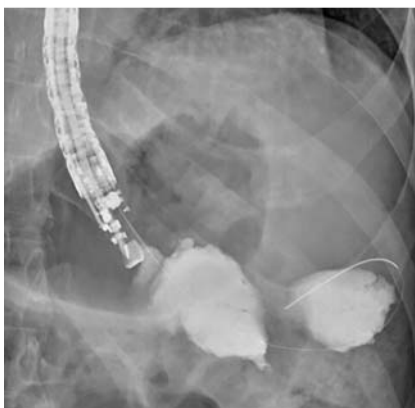
OPEN
ACCESS



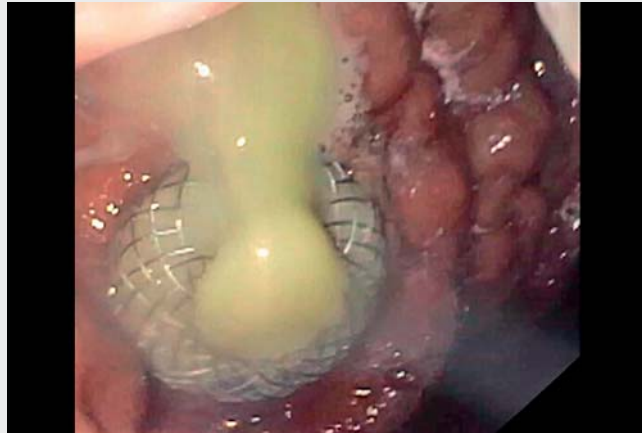
► **Fig. 1** The splenic abscess ruptured in the epiploon retrocavity on computed tomography scan.



► **Fig. 2** Endoscopic ultrasound evaluation revealed a hypo-anechoic collection containing air bubbles with a demarcated wall.



► **Fig. 3** The double cavity of the abscess confirmed by fluoroscopy.



► **Video 1** Splenic abscess with signs of anaerobic infection treated by endoscopic ultrasound-guided transgastric drainage using a lumen-apposing metal stent.

Splenic abscesses can be a rare complication of pancreatic tail adenocarcinoma [1].

The management of a splenic abscess includes antimicrobial therapy, percutaneous drainage, and surgery [2]. Since its first description in 2006 [3], a few cases of endoscopic ultrasound (EUS)-guided splenic abscess drainage have been reported in the literature [4]. In one case, Nieto et al. used a lumen-apposing metal stent (LAMS) [5].

A 55-year-old man with a history of locally advanced pancreatic tail cancer developed multiple splenic abscesses after 4 months from diagnosis and three chemotherapy cycles. The initial computed tomography (CT) scan showed spontaneous rupture of the major splenic abscess in the epiploon retrocavity (► **Fig. 1**). The patient was referred for EUS evaluation.

On EUS imaging, the abscess was visible from the gastric body and appeared as a hypo-anechoic collection (6×8 cm) containing air bubbles with a demarcated wall (► **Fig. 2**). SonoVue injection showed no enhancement within the col-

lection, with hyperemia of the abscess wall.

EUS-guided aspiration of purulent fluid was performed using a 19-gauge needle for microbiological tests. The fluoroscopic image after contrast injection through the needle confirmed a well-defined cavity (► **Fig. 3**). In consideration of signs of anaerobic infection, we performed EUS-guided transgastric drainage using a 10×10-mm LAMS over the guidewire (► **Video 1**). A large amount of purulent fluid passed into the gastric cavity after LAMS release. The patient recovered quickly from sepsis, and endoscopic evaluation 12 days later showed clearance of the abscess cavity and the LAMS was removed.


This case demonstrates the efficacy of an EUS-guided intervention in a complex non-conventional setting. In the hands of an expert endoscopist, EUS-guided drainage of a splenic abscess with a LAMS could be considered on a case-by-case basis as an alternative to percutaneous drainage or surgery.

Endoscopy_UCTN_Code_TTT_1AS_2AC

Competing interests

The authors declare that they have no conflict of interest.

The authors

Elia Armellini¹  Flavio Metelli¹, Maria Grazia Sauta², Michele Marini³, Fabio Pace¹, Gianluigi Patelli⁴, Giuseppe Nastasi²

- 1 ASST Bergamo Est, Gastroenterology Department, Seriate, Bergamo, Italy
- 2 ASST Bergamo Est, Oncology Department, Seriate, Bergamo, Italy
- 3 ASST Bergamo Est, Surgery Department, Seriate, Bergamo, Italy
- 4 ASST Bergamo Est, Radiology Department, Seriate, Bergamo, Italy

Corresponding author

Flavio Metelli, MD

ASST Bergamo Est, Gastroenterology Department, Via Paderno, 21, 24068 Seriate, BG, Italy
flaviomet90@gmail.com

References

- [1] Su Y, Miao B, Wang H et al. Splenic abscess caused by *Streptococcus gallolyticus* subsp. *pasteurianus* as presentation of a pancreatic cancer. *J Clin Microbiol* 2013; 51: 4249–4251
- [2] Radcliffe C, Tang Z, Gisriel SD et al. Splenic abscess in the new millennium: A descriptive, retrospective case series. *Open Forum Infect Dis* 2022; 9: ofac085
- [3] Lee DH, Cash BD, Womeldorph CM et al. Endoscopic therapy of a splenic abscess: definitive treatment via EUS-guided transgastric drainage. *Gastrointest Endosc* 2006; 64: 631–634
- [4] Okamoto T, Nakamura K, Fukuda K. Endoscopic ultrasound-guided transluminal drainage for aseptic splenic abscess. *Endosc Int Open* 2021; 9: E1581–E1582
- [5] Elmeligui AM, Deshmukh A, Okasha HH et al. EUS-guided splenic abscess drainage using lumen apposing metal stent. *Endosc Ultrasound* 2021; 10: 219–220

Bibliography

Endoscopy 2023; 55: E147–E148
DOI 10.1055/a-1956-0640
ISSN 0013-726X
published online 28.10.2022
© 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



ENDOSCOPY E-VIDEOS

<https://eref.thieme.de/e-videos>



Endoscopy E-Videos is an open 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. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

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