

EUS-guided splenic abscess drainage using lumen apposing metal stent

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A 44-year-old male presented with abdominal pain and fever. He experienced an attack of post endoscopic retrograde cholangiopancreatography necrotizing pancreatitis with pancreatic fluid collection that was drained by percutaneous approach with significant improvement of his condition and the inserted 12 F pig-tail catheter was removed after 3 weeks. Two months later, he experienced similar abdominal pain, computed tomography (CT) of the abdomen revealed complex splenic collection with soft-tissue stranding and fluid tracking throughout the abdomen.

A cystogastrostomy approach for abscess drainage was chosen due to its close proximity to the gastric wall. In addition, the large size of the abscess made it suitable and convenient to use lumen apposing metal stent, 10 mm × 10 mm (Axios, Boston Scientific TM), instead of using double pig-tail stent for more proper draining. First, the echo-endoscope was advanced into the stomach and the splenic abscess was visualized [Figure 1]. Then, under endoscopic ultrasound (EUS)-guidance, one 10 mm × 10 mm

lumen-apposing metal stent (LAMS) was deployed with cautery enhancement into the abscess cavity through the gastric wall [Figure 2]. Once deployment of the LAMS was complete, the pyogenic contents were drained into the stomach [Figure 3]. Follow-up CT scan was performed 1-month post procedure and revealed complete splenic abscess resolution [Figure 4].

Splenic abscess is an uncommon clinical infection with an estimated incidence of 0.05%–0.7%.^[1] In some cases, a pancreatic abscess and diverticulitis may extend and involve the spleen. The diagnosis of this condition can be easily missed resulting in a very high mortality reaching more than 70%. Nevertheless, the mortality can be reduced to <1% with proper treatment.^[2–4] EUS-guided drainage of splenic abscess using LAMS is an emerging alternative novel procedure appropriate for patients who cannot tolerate surgery. It is a safe and more effective therapeutic alternative to CT-guided percutaneous drainage and surgery. It allows for greater spatial visualization

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| Quick Response Code:  | Website: www.eusjournal.com |
| | DOI: 10.4103/EUS-D-20-00262 |

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How to cite this article: Elmeligui AM, Deshmukh A, Okasha HH, Parsa N, Tejedor-Tejada J, Nieto J. EUS-guided splenic abscess drainage using lumen apposing metal stent. *Endosc Ultrasound* 2021;10:219-20.

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Received: 2020-12-23; **Accepted:** 2021-03-01; **Published online:** 2021-05-06



Figure 1. EUS view of the abscess, measuring 5.9 cm × 6.9 cm



Figure 2. Echoendoscopic view of the distal flange of lumen-apposing metal stent deployment into abscess cavity. Deployment of distal end of the 10 × 10 mm LAMS

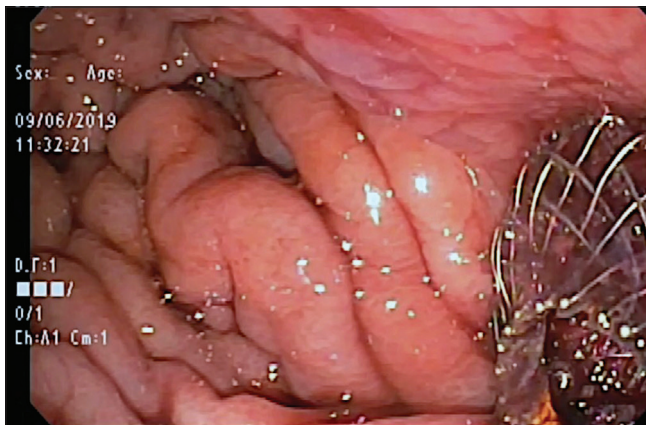


Figure 3. Endoscopic view of the proximal flange of lumen-apposing metal stent deployment into the gastric lumen

and awareness of anatomical structures aiding in the placement of stents. In conclusion, EUS-guided splenic abscess drainage is an emerging procedure that may have a higher success rate with fewer complications compared to percutaneous drainage and surgery.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.



Figure 4. Computed tomography scan showing resolution of the splenic abscess post lumen apposing metal stent placement with the Axios stent in place. Complete splenic abscess drainage after LAMS deployment

Conflicts of interest

There are no conflicts of interest.

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