



Outpatient EUS gastrocholecystostomy for symptomatic gallbladder distension

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Biliary stent placement has become widely accepted as a standard procedure for palliation of jaundice in patients with unresectable malignant biliary strictures. The rate of cholecystitis after ERCP with or without self-expandable metal stent (SEMS) deployment ranges from 5% to 11%.^{1,2} The use of fully covered SEMSs (FCSEMSs) theoretically may increase the risk of cholecystitis because of obstruction of the cystic orifice; however, contrasting data were reported.³

Meanwhile, tumoral involvement of the cystic orifice is considered to be an important risk factor for cholecystitis after SEMS placement.⁴ Acute cholecystitis or symptomatic gallbladder hydrops related to cystic duct malignant obstruction requires urgent gallbladder drainage because affected patients are often unfit for surgery.

We report the case of an 80-year-old woman undergoing ERCP for palliation of obstructive jaundice due to unresectable pancreatic cancer.

After common bile duct cannulation and cholangiography, a 10- × 60-mm FCSEMS (Wallflex; Boston Scientific, Natick, Mass, USA) was inserted to overcome a severe

neoplastic stricture on the middle part of the common bile duct. The stricture involved the cystic duct orifice (Fig. 1).

Pneumobilia after FCSEMS deployment, confirming stricture resolution, was seen on the cholangiogram (Fig. 2). The postoperative course was uneventful, and



Figure 1. Cholangiogram showing severe stricture in the middle third of the common bile duct with involvement of the cystic duct orifice.



Figure 2. Fluoroscopic view clearly showing pneumobilia after deployment of a fully covered self-expanded metal stent, confirming stricture resolution.



Figure 3. EUS view showing distended gallbladder with intact wall.



Figure 4. EUS view showing deployment of the distal flange of the lumen-apposing metal stent inside the gallbladder.

the patient was discharged in good clinical condition on postprocedural day 1.

After 1 week, she was seen again because of severe abdominal pain in the right hypochondrium and a palpable right upper-quadrant mass. A laboratory chemistry test highlighted leukocytosis ($22,000 \times 10^9/L$) and increased level of C-reactive protein up to 390 U/L. A CT scan showed a marked distension of the gallbladder without wall thickness and ascites (Fig. 3). Percutaneous cholecystostomy was not performed in the primary hospital because of ascites. Therefore, she was transferred to our tertiary center, and emergency EUS-guided gastrocholecystostomy was performed with the patient under general anesthesia and a Hot Axios (15-mm \times 10-mm) (Boston Scientific) was deployed (Fig. 4). Hot Axios deployment induced immediate symptom resolution (Video 1, available online at www.VideoGIE.org).

Oral diet was restarted after 3 hours, and the patient was discharged on the day of the procedure. Early discharge was feasible because these criteria had been fulfilled: the patient's excellent clinical condition, home distance from hospital within 100 km, and presence of an in-home, trained caregiver. No adverse events occurred after a follow-up time of 2 months. The patient, although experiencing wasting syndrome, eats normally and no longer needs pain medication.

EUS-guided drainage of the gallbladder is becoming the criterion standard treatment for acute cholecystitis in high-risk patients.⁵ Several studies showed a higher technical and clinical success rate of the EUS approach compared with the percutaneous or transcystic approach.^{6,7} Moreover, EUS drainage seems to have significantly fewer long-term adverse events and a lower rate of reintervention compared with the percutaneous approach.⁸

Here we have reported a case of EUS-guided gallbladder drainage with a lumen-apposing metal stent for acute symptomatic gallbladder distension in an outpatient setting. This procedure could be considered feasible, safe, and effective for the management of symptomatic gallbladder pathologic conditions, even in an outpatient

setting, as long as no signs of general sepsis are present and an intact gallbladder wall is confirmed at preprocedural imaging.

In a similar scenario, when palliative treatments are needed in end-stage patients, the ability to guarantee a 1-day procedure may significantly improve the patient's quality of life.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

Abbreviations: FCSEMS, fully covered SEMS; SEMS, self-expandable metal stent.

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<https://doi.org/10.1016/j.vgie.2019.01.001>