Endoscopic cholecystogastrostomy in a patient with gallbladder empyema secondary to cholangiocarcinoma

Endoscopic ultrasound (EUS)-guided gallbladder drainage (EUS-GBD) is reported to have comparable efficacy to percutaneous drainage [1]. However, the technique has not been widely adopted owing to lack of specific devices and concerns about leakage and stent migration. Lumen-apposing metal stents have been developed to minimize the risks and simplify the procedure [2]. A novel device has recently become available (Hot AXIOS; Boston Scientific Corp., Marlborough, Massachusetts, USA), and consists of a stent (stent diameter 15 mm, stent length 10 mm, flange diameter 24 mm) and electrocautery-enhanced delivery system, enabling a single device to be used when previously multiple devices and steps were required. To date, only a single case report of its use for EUS-GBD has been published [3]. We report on the use of this device for EUS-GBD in a 68-year-old woman with obstructive jaundice due to inoperable hilar cholangiocarcinoma.

A percutaneous transhepatic cholangiography procedure was performed, and an internal-external drain was placed. Shortly after this procedure the patient developed clinical features of cholecystitis. A computed tomography (CT) scan showed gross distension of the gallbladder and the presence of a gallbladder stone. There was also extensive pericholecystic fluid. Following a multidisciplinary team discussion, a decision was made to perform EUS-GBD using the Hot AXIOS. The procedure was undertaken under conscious sedation, using a therapeutic echoendoscope. The gallbladder was punctured from the antrum using the

Endoscopic ultrasound-guided gallbladder drainage using the Hot AXIOS device (Boston Scientific Corp., Marlborough, Massachusetts, USA).

Hot AXIOS device and a cutting current was applied. Radiography was used, but deployment of the stent was entirely under EUS control (▶ **Video 1**). The stent was dilated using a 10-mm balloon. The procedure was well tolerated and completed within 15 minutes. EUS and fluoroscopy confirmed that the stent was in a good position. A large amount of pus drained immediately.

There was a rapid improvement in the patient's clinical condition over the next few days. Biliary drainage was internalized with the placement of two metal stents. CT scans at 8 days and 7 weeks post placement showed that the stent remained in the correct position and confirmed resolution of cholecystitis.

Endoscopy_UCTN_Code_TTT_1AS_2AD

Competing interests: None

Bharat Paranandi¹, Manu Nayar¹, John Scott², Richard Charnley³, Colin Wilson³, Kofi Oppong¹

¹ Department of Gastroenterology and HPB unit, Freeman Hospital, Newcastle upon Tyne, United Kingdom

² Department of Radiology, Freeman Hospital, Newcastle upon Tyne, United Kingdom

³ Department of Surgery and HPB unit, Freeman Hospital, Newcastle upon Tyne, United Kingdom

References

- 1 Jang JW, Lee SS, Song TJ et al. Endoscopic ultrasound-guided transmural and percutaneous transhepatic gallbladder drainage are comparable for acute cholecystitis. *Gastroenterology* 2012; 142: 805–811
- 2 Walter D, Teoh AY, Itoi T et al. EUS-guided gall bladder drainage with a lumen-apposing metal stent: a prospective long-term evaluation. *Gut* 2016; 65: 6–8
- 3 Teoh AYB, Binmoeller KF, Lau JYW. Single-step EUS-guided puncture and delivery of a lumen-apposing stent for gallbladder drainage using a novel cautery-tipped stent delivery system. *Gastrointest Endosc* 2014; 80: 1171

Bibliography

DOI <http://dx.doi.org/10.1055/s-0042-106578>
Endoscopy 2016; 48: E163
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Corresponding author

Kofi Oppong, MD
Hepato-Pancreato-Biliary Unit
Freeman Hospital
Freeman Road
Newcastle upon Tyne NE7 7DN
United Kingdom
Fax: +44-191-2231249
Kofi.Oppong@nuth.nhs.uk