Two for one: endoscopic drainage of a large pyogenic liver abscess at the time of ERCP

► **Fig. 1** Magnetic resonance imaging showing a large liver abscess.

► **Fig. 2** A pigment stone removed on endoscopic retrograde cholangiopancreatography.

An 84-year-old man with chronic lung disease on home oxygen, coronary artery disease with coronary stents, and diabetes, presented with right upper quadrant pain and fever. Magnetic resonance imaging was performed that showed choledocholithiasis in a dilated bile duct. Additionally, a large 7-cm fluid-filled cavity was seen in the left lobe of the liver abutting the stomach, consistent with an abscess (► **Fig. 1**). Given the choledocholithiasis and lack of travel history, the presumptive diagnosis was pyogenic liver abscess.

In view of the patient's comorbidities, a single procedure to treat both the cho-

► **Video 1** Endoscopic ultrasound-guided drainage of a large liver abscess.

► **Fig. 3** Endoscopic view of the placed lumen-apposing metal stent draining copious pus from the liver abscess into the stomach.

► **Fig. 4** Computed tomography scan showing the liver 4 weeks after placement of a lumen-apposing metal stent. The abscess has resolved.

ledocholithiasis and the liver abscess was preferable. In addition, the size of the abscess necessitated a larger drain. Thus, after multidisciplinary discussion, the decision was made to proceed with endoscopic drainage of the abscess after endoscopic retrograde cholangiopancreatography (ERCP). ERCP was uneventful and pigment stones were removed (► **Fig. 2**). Next, endoscopic ultrasonography (EUS) was performed using a linear

scope. A large heterogeneous collection was seen in the left lobe of the liver abutting the stomach. A 19-gauge aspiration needle was used to aspirate pus, confirming a pyogenic abscess. A 15-mm electrocautery lumen-apposing metal stent was then placed in the usual manner (► **Video 1**). Copious pus was seen flowing into the stomach from the distal flange (► **Fig. 3**).

The patient did well and was discharged 5 days later after receiving intravenous

antibiotics. Four weeks after stent placement, computed tomography showed resolution of the abscess (► **Fig. 4**), and the stent was subsequently removed. At 3-month follow-up the patient continued to do well.

Traditionally, pyogenic liver abscesses are drained percutaneously. However, large liver abscesses that are accessible by EUS may benefit from a larger-diameter drain. In addition, if bile duct intervention is required, this case shows that both can be performed at the same time.

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Competing interests

AJT: Consultant for Pentax Medical, research support from NinePoint Medical.

PB: Consultant for Olympus America, Boston Scientific, Apollo Overstitch, and Fujifilm.

All other authors have no conflict of interest.

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Bibliography

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