An 89-year-old woman presented to our department having experienced acute cholecystitis a few weeks previously. Her comorbidities, chronic kidney disease, and congestive heart failure meant she was not a suitable candidate for surgery. She underwent EUS-guided gallbladder drainage, which was performed without complications. During this procedure, a 10-mm × 10-mm lumen-apposing metal stent (LAMS) (Hot Axios; Boston Scientific) was implanted for gallbladder drainage. A few days later, the patient complained of right-upper quadrant abdominal pain and fever, and a new acute cholecystitis episode was diagnosed.

Upper endoscopy with a therapeutic endoscope (GIF-1TH190; Olympus) was performed. The endoscope was introduced as far as the duodenum, where it became evident that the LAMS was obstructed by a biliary stone impacted in the stent lumen (Fig. 1; Video 1). Electrohydraulic lithotripsy (EHL) (1.9-Fr, 375-cm Biliary EHL Probe Autolith; Boston Scientific) was performed to fragment the obstructive biliary stone. The EHL probe was introduced through the endoscope, and fragmentation with the infusion of saline was started (Fig. 2). The gallbladder stone was broken into multiple fragments that were removed with a Dormia basket. During the procedure, which lasted about 60 min, purulent secretion was seen draining from the

**Video 1** Biliary stone occluding a lumen-apposing metal stent treated with electrohydraulic lithotripsy in a patient who had previously undergone endoscopic ultrasound-guided cholecystoduodenostomy.
The gallbladder wall showed a 10 mm-fistula with some fragmented stones within the cavity (Fig. 3); these were removed with a Roth Net retriever. To prevent renewed LAMS occlusion, placement of a plastic double-pigtail stent was decided on (Fig. 4). No complications were observed in the patient; she tolerated the procedure and was discharged home a few days later. EUS-guided gallbladder drainage in patients who are not candidates for surgery is a safe technique and has a low complication rate. In patients with large stones, recurrent cholecystitis, impaction, and LAMS obstruction can occur [1, 2]. EHL and laser lithotripsy are two useful techniques that allow fragmentation of stones; EHL generates high-amplitude hydraulic pressure waves, while laser lithotripsy uses a laser beam with repetitive pulses of laser energy to create a mechanical shockwave [3, 4]. EHL is a safe option to resolve LAMS occlusion in cholecystoduodenostomy.

Competing interests

The authors declare that they have no conflict of interest.

The authors

Edson Guzmán-Calderón1,2,3, Belén Martínez-Moreno4, Juan A. Casellas4, José Ramón Aparicio4

1 Gastroenterology Unit, Hospital Nacional Edgardo Rebagliati Martins, Lima, Peru
2 Universidad Peruana de Ciencias Aplicadas (UPC), Lima, Peru
3 Gastroenterology Unit, Angloamericana Clinic, Lima, Peru
4 Gastroenterology Unit, Hospital General Universitario de Alicante, Alicante, Spain

Corresponding author

Gerly Edson Guzmán-Calderon, MD
Av. Edgardo Rebagliati 490, Jesús María, Lima, Peru
edson_guzman@hotmail.com

References


Bibliography

Endoscopy 2021; 53: E415–E416
DOI 10.1055/a-1334-3970
ISSN 0013-726X
published online 14.1.2021
© 2021. Thieme. All rights reserved.
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is a free 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.

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