

# Endoscopic Ultrasound-Guided Drainage of a Remnant Gallbladder

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## INTRODUCTION

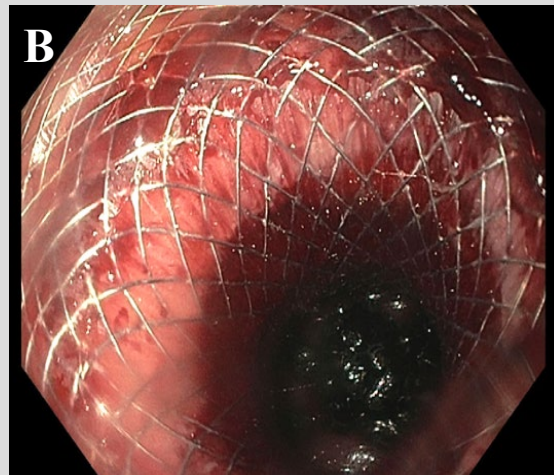
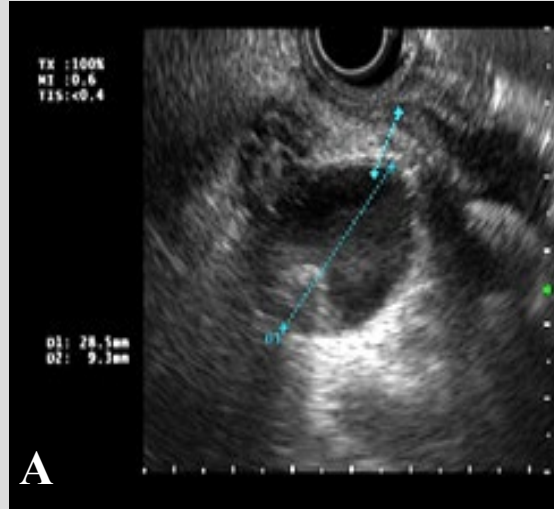
Endoscopic Ultrasound (EUS) guided drainage of a remnant gallbladder (RGB) with lumen-apposing metal stents (LAMS) can be safely performed for suppurative cholecystitis and choledocholithiasis following subtotal cholecystectomy (STC).

## CASE REPORT

**HPI:** 68-year-old male presented with recurrent bacteremia secondary to symptomatic RGB after undergoing STC for severe necrotizing gallstone pancreatitis. His preceding course was complicated by infected walled-off pancreatic necrosis, recurrent choledocholithiasis with ascending cholangitis, liver abscess, and bacteremia.

**Prior Treatments:** EUS-guided necrosectomy, multiple endoscopic retrograde cholangiopancreatographies (ERCPs) with unsuccessful attempts at transpapillary gallbladder drainage, and percutaneous cholecystostomy followed by laparoscopic STC.

**Description of Procedure:** Linear EUS identified the RGB measuring 19.4mm in diameter. Using a 19-gauge FNA needle, the RGB was instilled with 80cc of sterile saline to a diameter of 28.5mm (figure 1a). EUS-guided cholecystogastrostomy was then performed using a 10 x 15 mm electrocautery-enabled access catheter-enhanced LAMS. The LAMS was dilated to 12mm sequentially using a controlled radial expansion balloon. Multiple large, pigmented stones passed with several remaining in the gallbladder (Figure 1b). A 10Fr by 5cm double pigtail stent was passed over a wire into the gallbladder to complete the procedure (Figure 1c).

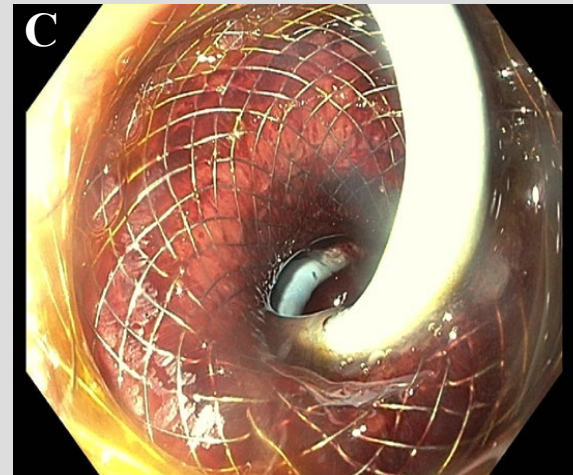


## FIGURES:

(A) EUS used to measure dimensions of remnant gallbladder after injecting 80mL of sterile saline.

(B) Cholecystogastrostomy was performed using a 10 mm X 15 mm LAMS with cautery tip over a wire and dilated using a controlled radial expansion balloon.

(C) A double pigtail stent was placed through the lumen of the LAMS.



## DISCUSSION

Laparoscopic cholecystectomy after recovery of gallstone pancreatitis is recommended to reduce risk of recurrent pancreatitis.

In some patients, though associated with significant morbidity, difficult anatomy and inflammation necessitates STC to avoid injury to the extrahepatic bile ducts and surrounding blood vessels typically followed by completion cholecystectomy when patient can tolerate the surgery.

Given this patient's life-threatening complications and poor surgical candidacy, EUS-guided drainage of his RGB was pursued as a safe and effective alternative to completion cholecystectomy.

## PATIENT OUTCOME

LAMS was removed at one month follow-up ERCP. The patient's symptoms have not recurred to date.

## REFERENCES

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