Thieme

# Two-step endoscopic radiofrequency ablation for metastatic cholangiocarcinoma

A 58-year-old woman with cholangiocarcinoma previously treated with partial hepatectomy with Roux-en-Y gastric bypass, presented with worsening jaundice. Despite chemotherapy, the patient was diagnosed with tumor obstructing the hepaticojejunostomy and associated intrahepatic biliary ductal dilation. She was referred for endoscopic retrograde cholangiopancreatography (ERCP) with intraductal radiofrequency ablation (RFA). However, conventional ERCP failed because of her altered anatomy. She was offered two-step RFA therapy (▶ **Video 1**).

During the first step, the patient underwent a successful endoscopic ultrasound-guided hepaticogastrostomy with placement of a 10 mm fully covered self-expanding metal stent, bridged with a 7 Fr × 15 cm plastic double-pigtail stent. One month after biliary decompression and maturation of the hepaticogastrostomy, the patient underwent RFA of the malignant stricture and placement of a 7 Fr × 15 cm plastic double-pigtail stent in antegrade fashion, across the stricture (▶ **Fig. 1**).

Unresectable cholangiocarcinoma is a challenging disease, for which chemotherapy and radiotherapy are not typically able to provide significant survival benefits [1]. Local ablative therapies, particularly RFA, have been shown to improve symptoms in malignant biliary strictures [2, 3]. In addition, there is some suggestion that RFA may be associated with improved survival [4]. RFA requires biliary access to determine the location of the stricture. Then the radiofrequency energy can be directly applied at the stricture site. However, when access to the biliary stricture is not feasible during conventional ERCP, a successful two-step RFA via a hepaticogastrostomy can be offered successfully, as illustrated by this case.

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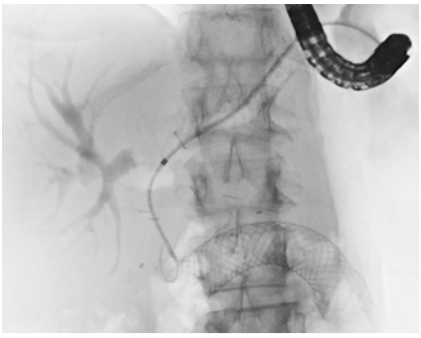

▶ **Fig. 1** Fluoroscopy image of a transhepatic fully covered metal stent placed with a double-pigtail stent to create access for future radiofrequency ablation.

## Competing interests

Dr. Kahaleh has received research support from Pinnacle, EMcision, and Boston Scientific Corp. He is a consultant for Xlumena, Concordia lab, and Boston Scientific Corp.

## The Authors

**Monica Saumoy, Enad Dawod, Ming Ming Xu, Michel Kahaleh**
Division of Gastroenterology and Hepatology, Weil Cornell Medical, New York, United States

## Corresponding author

**Michel Kahaleh, MD**
Division of Gastroenterology and Hepatology, Weill Cornell Medical College, New York, NY 10021, United States
Fax: +1-646-962-0110
mkahaleh@gmail.com

**Video 1** Video demonstrating two step process for radiofrequency ablation of a malignant stricture.

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