

Endoscopic radiofrequency ablation of a cholangiocarcinoma with targeted intraductal cholangioscopic access

Radiofrequency ablation (RFA) is a technique that has been used during endoscopic retrograde cholangiopancreatography (ERCP) for palliation of locally advanced biliary malignancies [1]. Direct cholangioscopy can be useful for confirming a successful response to therapy [2]. We present a case evaluating the feasibility of intraductal RFA using cholangioscopy (SpyGlass DS System) in a malignant biliary stricture [3].

An 83-year-old woman presented with a 1-month history of jaundice and weight loss. Her serum bilirubin level was 10.50 mg/dL. An abdominal computed tomography (CT) scan revealed an intrahepatic biliary dilatation and dilated (16 mm) common bile duct (CBD). ERCP showed a 2.5-cm tight distal CBD stricture with upstream biliary dilatation, and a fully covered metal stent was placed. Brush cytology confirmed the suspicion of cholangiocarcinoma.

Primary endobiliary RFA was offered to the patient and informed consent was obtained. The duodenoscope passed the ampulla and a cholangiogram showed the dilated biliary tree above the distal biliary stricture. A digital cholangioscope (SpyGlass) was inserted into the bile duct, and the stricture was visualized revealing a nodular lesion with irregular mucosa (▶ **Video 1**). Intraductal RFA was performed advancing into the stricture, using 10 W for a time period of 2 minutes under 75 °C of intraductal temperature. The cholangioscope was reinserted and showed successfully ablated tissue with localized necrosis (▶ **Fig. 1**). Finally, an uncovered metal stent was deployed (WallFlex; 10×60 mm) (▶ **Video 1**). The patient was discharged the following day without any complications.

Endobiliary RFA that is targeted using cholangioscopy adds to the endoscopic armamentarium for the treatment of unresectable malignant obstructive neo-



plasms; moreover, it is possible to confirm the successful ablation of malignant strictures after RFA.

In conclusion, endobiliary RFA seems to be safe and effective as a treatment modality for unresectable bile duct cancer.

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Competing interests

The authors declare that they have no conflict of interest.

The authors

Lidia Marti Romero¹, Vanesa Martínez Escapa¹, Inmaculada Castelló Miralles², German Lacal Gutierrez³, Carmen Ivars Párraga⁴, Gloria Alemany Perez¹, Jose Manuel Querol Ribelles⁵

¹ Department of Digestive Diseases, Hospital Francisc de Borja, Valencia, Spain

² Department of Digestive Diseases, Consorci Hospital General Universitari de Valencia, Valencia, Spain



▶ Fig. 1 Images following reinsertion of the intraductal cholangioscope showing successfully ablated tissue with localized necrosis.

³ Department of Industrial Engineering, University of Valencia, Valencia, Spain

⁴ Department of Anesthesia, Hospital Francisc de Borja, Valencia, Spain

⁵ Department of Internal Medicine, Hospital Francisc de Borja, Valencia, Spain

Corresponding author

Vanesa Martínez Escapa, MD

Hospital Francesc de Borja, Digestive section, Avenida de la Medicina, Gandia, Valencia 46702, Spain
Fax: +34-962-849500
Vanesca@hotmail.com

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