Digital cholangioscopy: assessing the impact of radiofrequency ablation

Radiofrequency ablation (RFA) has been shown to be an efficacious therapy that improves survival in patients with malignant biliary strictures [1]. Direct cholangioscopy can be useful in confirming a successful response to therapy. We present the case of a patient who underwent RFA of a distal malignant biliary stricture, with cholangioscopic images obtained before and after the procedure confirming successful ablation.

A 66-year-old woman with an inoperable malignant biliary stricture presented for endoscopic retrograde cholangiopancreatography (ERCP). The duodenoscope (TGF-Q180V; Olympus America, Center Valley, Pennsylvania, USA) was advanced to the ampulla. An occlusion cholangiogram showed a dilated biliary tree above a distal biliary stricture. A digital cholangioscope (SpyGlass; Boston Scientific, Natick, Massachusetts, USA) was inserted into the bile duct, and the stricture was visualized. Oozing, erythematous mucosa consistent with malignancy was seen in the distal portion of the duct.

An RFA catheter (Habib EndoHPB; EMcision, Montreal, Canada) was advanced into the stricture, and RFA was performed at 8 effect and 10W for 90 seconds [2]. The cholangioscope was then reinserted, and visualization showed successfully ablated tissue with localized necrosis (Fig. 1, Video 1). Finally, a metal stent (WallFlex; Boston Scientific) was deployed.

New applications for cholangioscopy are emerging as a consequence of the incorporation of a new digital cholangioscopy system into the endoscopic arsenal. One such application is to confirm successful ablation in malignant strictures after RFA. This case illustrates the impressive necrosis that RFA induces when used as a palliative therapy in patients with malignant biliary strictures.

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Fig. 1 Cholangioscopic image of intense intraductal necrosis induced by radiofrequency ablation.

Video 1

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