Cystotome assisted stent recanalization : an alternative way of regaining access to occluded metal biliary stents

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To the Editor,

Increased survival of patients with malignant biliary strictures can present endoscopic challenges over time, as local tumor progression or in-stent granulation tissue may hamper biliary access (1,2). A 63-year-old male was referred to our endoscopy department following an episode of cholangitis (bilirubin level 2.2, upper limit of normal 1.0 mg/dl). One year earlier, diagnosis of a metastatic cholangiocarcinoma (Klatskin type IIIa) was made. Following triple stenting in Y-shaped configuration, with the upper two SEMS (Self Expandable Metal Stents) in juxtaposition, chemotherapy was initiated. Oncological reevaluation had recently shown disease regression, although in retrospect reduced patency of the left biliary stent could be suspected. ERCP was repeated, identifying a patent uncovered metal stent in the right biliary system. Despite multiple reintroductions, application of a rigid dilator and use of a balloon, the 0.025-inch guidewire could not be advanced into the left biliary system (Fig. 1, arrow). As in-stent obstruction by granulation tissue was suspected, a wire guided cystotome was introduced (6Fr, Cysto-Gastro-Set, ENDO-FLEX GmbH, Voerde, Germany). Following guidewire placement at the distal part of the stent (Fig. 2, arrowhead), the cystotome was advanced sequentially through the trajectory of the stent, using a blended cut mode (Erbe GmbH, Tuebingen, Germany). Stent recanalization and successful cannulation of the left biliary system was achieved (Fig. 2, left). In-stent positioning was continuously being affirmed by contrast injection and multi-directional fluoroscopy. After guidewire advancement, bilateral covered SEMS (Wallflex, Boston Scientific, Marlborough, USA) were deployed (Fig. 2, right), after which fevers abated and bilirubin levels regressed. Maintenance chemotherapy was continued two weeks later.

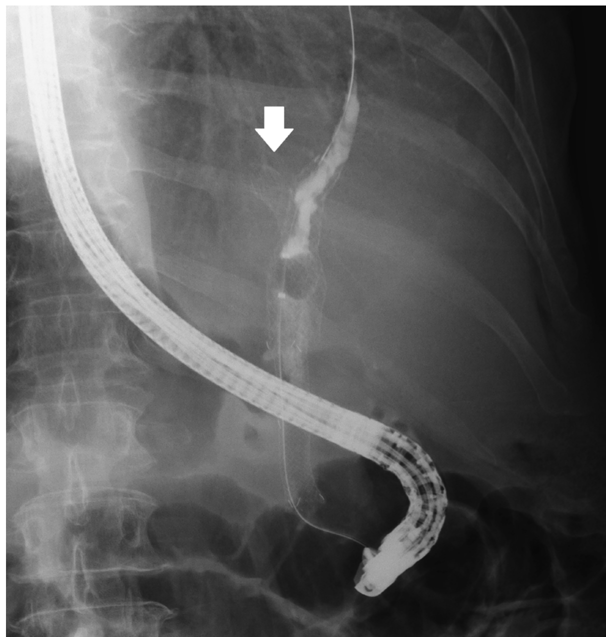

Figure 1. — ERCP image, prone positioning. The right sided biliary stent was accessed quite easily, showing complete patency with clear contrast opacification and distal contrast flow. However, the left sided biliary system could not be cannulated (arrow).

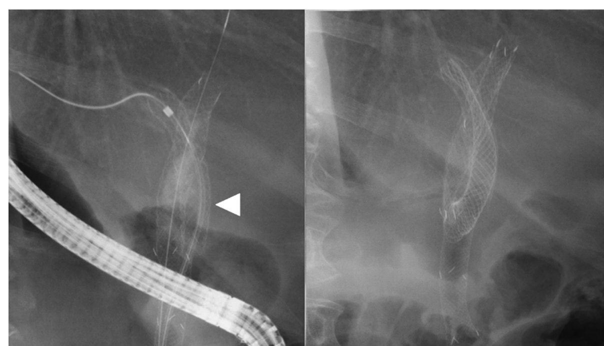

Figure 2. — Left : Following guidewire placement at the distal part of the stent (arrowhead), the cystotome was advanced sequentially through the trajectory of the stent, using a blended cut mode, after which the guidewire could be advanced into the left biliary system. Right : After cannulation of the left biliary system, bilateral SEMS were deployed in an effort the prevent right sided occlusion.

This technique provides an important therapeutic option in patients where previously placed SEMS cannot be re-accessed by conventional methods (3). However, continuous affirmation of cystotome positioning should

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be pursued, in an effort to prevent heat-related portal vein trauma, bile duct perforation or hemobilia (4).

Conflict of interest

None declared.

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