IMAGE OF THE ISSUE

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Epigastric Pain after ERCP

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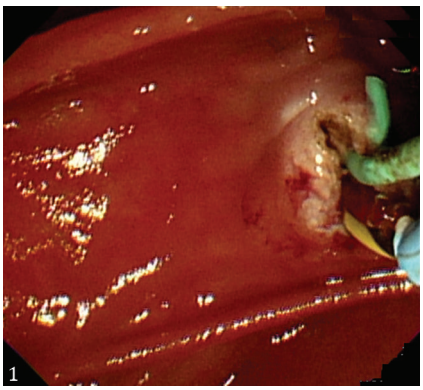

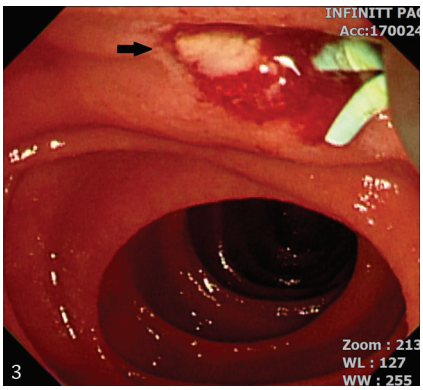

A 66-year-old man visited the hospital with a postprandial right upper quadrant abdominal pain and jaundice for one week. The abdominal computed tomography (CT) revealed a common bile duct (CBD) stone. Endoscopic retrograde cholangiopancreatography (ERCP) demonstrated one filling defect at distal CBD. Endoscopic sphincterotomy (EST) was performed by TRUEtome™ Cannulating Sphincterotome (Boston Scientific) with mixed current mode, one pigment stone was removed, and one pancreatic stent was inserted for pancreatitis prevention (Fig. 1).

Severe epigastric pain occurred a few hours after the ERCP procedure. Tachycardia was detected without fever. Generalized abdominal wall rigidity was observed. The blood test showed leukocytosis without obvious elevation of total bilirubin (1.1 g/dL), lipase (118 U/L), or lactate (0.9 mmol/L). Abdominal X-ray showed no pneumo-retroperitoneum. Post-ERCP pancreatitis was less likely due to low serum lipase levels. Post-ERCP cholangitis was not likely due to low serum bilirubin without fever. Perforation was not likely according to low serum lactate and unremarkable abdominal X-ray.

Abdominal CT on the day after ERCP revealed severe retroperitoneal infiltrations near the 2nd portion of the duodenum (Fig. 2). Endoscopic view of the EST wound showed whitish and edematous mucosa change, implying coagulation necrosis (Fig. 3). Thermal injury-induced duodenitis during EST was diagnosed. The patient kept nil per os for 3 days with intravenous fluid and proton pump inhibitor supply. His epigastralgia gradually improved, and he was then discharged.

Endoscopic retrograde cholangiopancreatography is associated with a higher rate of complications, including post-ERCP pancreatitis, post-EST bleeding, perforation, and cholangitis. Besides, high temperature-related thermal injury can cause pancreatitis and duodenitis, which is less emphasized [1]. During EST, electrosurgical generators deliver electrical current in 3 forms-pure cut, coagulation, or mixed current. Pure cut mode is associated with a higher risk of post-EST bleeding [2]. However, the high temperature during coagulation can vaporize the tissue, causing thermal injury. A longer contact duration may result in extensive tissue destruction, deeper ulceration, and even perforation [3]. To avoid high temperature-related thermal injury, the contact duration of the cut wire should be reduced.

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Conflicts of interest: None to declare.

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