

DUAL-GUIDEWIRE TECHNIQUE OF ERCP IN DIFFICULT BILIARY CANNULATION

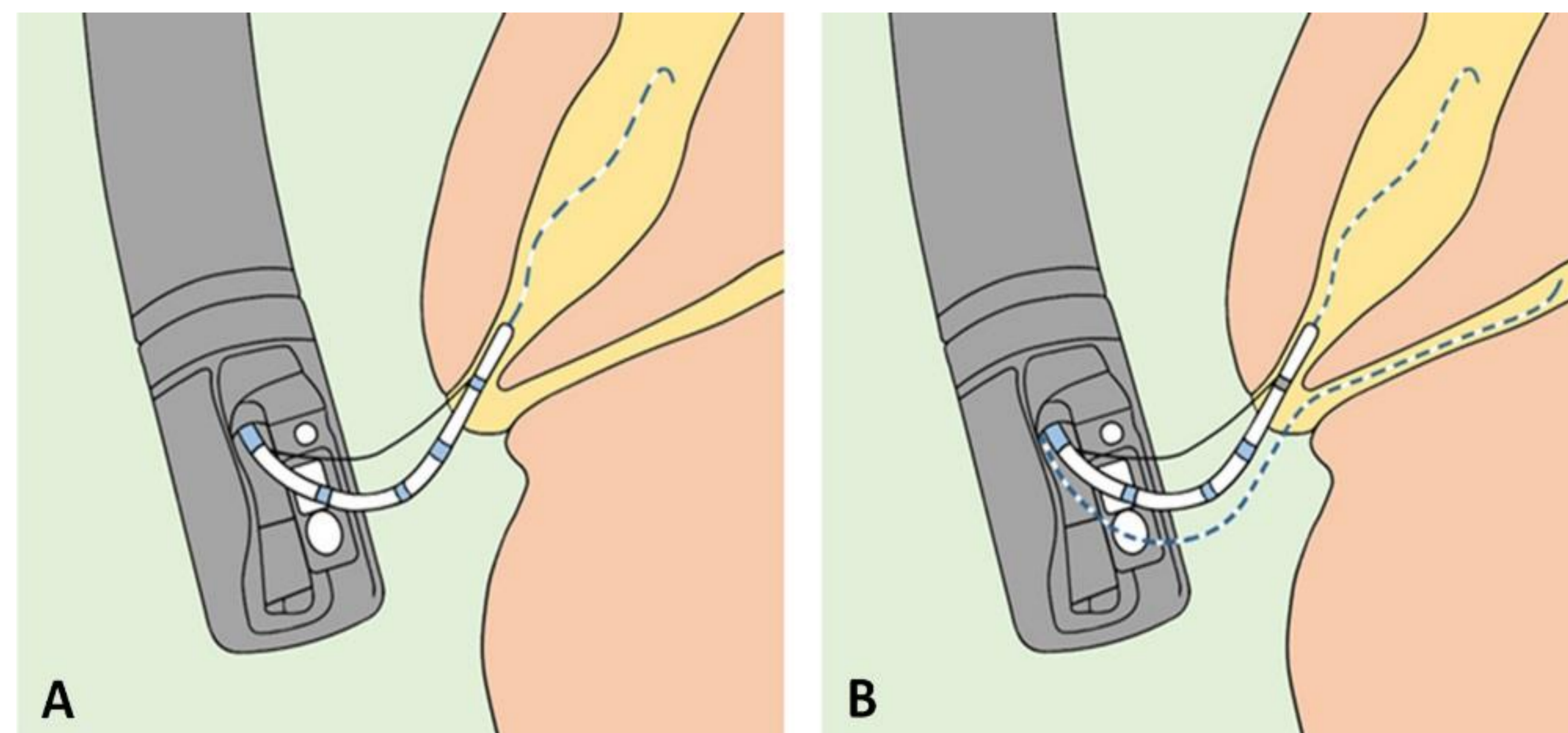
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Background. Acute pancreatitis (AP) is the most common complication of endoscopic retrograde cholangiopancreatography (ERCP), and develops in up to 15% of cases. Difficult biliary cannulation is a recognized technical factor in the development of post-ERCP pancreatitis. Modern technique of ERCP provides the initial cannulation of biliary duct with a small-diameter flexible guidewire with a hydrophilic tip without the use of preliminary contrasting.

Purpose. To assess the results of dual-guidewire technique of ERCP for difficult biliary cannulation.

Material and methods. The dual-guidewire technique of ERCP, when the pancreatic duct is inadvertently cannulated with a first guidewire, whereas second guidewire is passed alongside the existing wire and manipulated into the common bile duct, used in 11 patients. Eight patients underwent the procedure for choledocholithiasis, and 3 for the purpose of biliary stenting for pancreatic head tumors.

Results. The insertion of a second guidewire into the bile ducts was successful and the goal of endoscopic procedure was achieved in all 11 patients. According to the Cotton consensus criteria, mild post-ERCP pancreatitis, defined as the appearance of AP symptoms, associated by blood amylase at least 3 times higher than normal value for more than 24 hours after the procedure, was detected in only 2 (18%) patients. The rest of the patients had an uneventful post-procedural evolution.



Guidewire technique of biliary cannulation within ERCP
(A) Biliary cannulation with the initial introduction of a small diameter flexible guidewire with a hydrophilic tip and no preliminary contrast
(B) Biliary cannulation with dual-guidewires

Conclusions. The dual-wire ERCP technique may be the preferred salvage measure in difficult situations with single-wire biliary cannulation failure, accompanied by a high therapeutic success rate and a low incidence of post-ERCP pancreatitis. However, more extensive future studies are needed to determine definitively its effectiveness.

Keywords: ERCP, difficult biliary cannulation, pancreatitis, dual-guidewire technique