Rescue method for difficult guidewire manipulation during Endoscopic ultrasound-guided rendezvous

원광대학교 의과대학 내과학교실[1], 원광대학교병원 췌장담도내과[2]

신민혁[1], 전형구[2], 김태현[2]

A 81 year-old women was admitted our department for evaluation of incidentally detected common bile duct (CBD) dilation on abdomen computed tomography. No abnormal finding of physical examination, vital sign or laboratory finding was seen. However, T2 weighted magnetic resonance cholangiopancreatography showed CBD stones with CBD stricture (Fig. A). Endoscopic retrograde cholangiopancreatography (ERCP) was performed, but selective biliary cannulation was failed due to due to periampullary diverticulum and distal CBD stricture. Next, we performed an endoscopic ultrasound-guided rendezvous technique (EUS-RV). Bile duct puncture and contrast injection using a 19-gauge needle (EZ shot 3plusTM; Olympus, Tokyo, Japan) were performed. Then, insertion of a 0.025-inch guidewire (Visiglide®; Olympus Medical Systems, Tokyo, Japan) via a 19-gauge needle was attempted to manipulate the anterograde guidewire into the duodenum across the ampulla. Unfortunately, the guidewire could not be advanced into the duodenum but only passed into the main pancreatic duct (MPD) (Fig. B). Guidewire manipulation into the duodenum was unsuccessful even after several attempts with guidewire change or needle angle adjustment. Therefore, we placed the guidewire across the CBD and the MPD and changed the echoendosocpe to a duodenoscope (Fig. C). Grasper forceps were advanced into the MPD to grab the guidewire. We slowly pushed out the grasper forceps into the duodenum (Fig. D). Successful biliary cannulation alongside the guidewire was achieved, and a full covered metal stent (FCMS) (10 mm diameter, 5 cm total length; M.I.Tech, Seoul, South Korea) was placed to prevent bile leakage (Fig. E,F). One month later, complete CBD stone removal was performed following removal of the FCMS. The EUS-RV technique is an alternative option after salvage failed biliary cannulation. In our patient, severe bile duct stricture and periampullary diverticulum might have prevented the guidewire from passing into the duodenum, though guidewire insertion into the MPD through the CBD was possible. Therefore, our techfnique might help achieve successful EUS-RV in similar situations.