Reconnecting “missing” part of duct by needle knife using rendezvous technique

A 73-year-old Thai woman presented with a recurrent episode of cholangitis. Two months previously, she had presented with acute cholangitis and underwent endoscopic retrograde cholangiopancreato-graphy (ERCP) with sphincterotomy and balloon extraction for common bile duct stones. This time, a repeat ERCP was performed. Surprisingly, the cholangiogram showed a cut-off sign at the mid extrahepatic duct (Fig. 1). A CT scan of the abdomen showed air in the gallbladder, but no mass or cause of biliary obstruction was found (Fig. 2). The patient subsequently underwent percutaneous biliary drainage, and a cholangiogram confirmed the mid extrahepatic duct obstruction (Fig. 3). In addition, contrast extravasation from the gallbladder into the jejunum was observed. A third ERCP performed under the rendezvous technique demonstrated a thin area of disconnected common bile duct. An attempt to traverse the obstruction with a guide wire from both sides was unsuccessful. A triple-lumen needle knife (Microvasive, Natick, Massachusetts, USA) was introduced intraductally (Fig. 4). Under fluoroscopic guidance, a puncture was successfully made into the upstream disconnected duct (Fig. 5). Finally, a 10-Fr plastic stent was inserted to bridge the duct (Fig. 6). The patient was discharged home within 2 days and reported no symptom that related to perforation or bleeding. Currently, she is rescheduled for repeat ERCP for stent upsizing.

Normally, rendezvous biliary drainage is led from the percutaneous site [1, 2].
Endoscopic rendezvous can be performed under endoscopic ultrasound guidance through the duodenum or stomach [4]. Blind puncture of the biliary tract without definite bulging or endoscopic ultrasound confirmation is prone to inadvertent perforation. However, in our case in which a very thin gap was noted by bidirectional cholangiogram, the proximal cholangiogram was used as a landmark for a successful puncture.

References