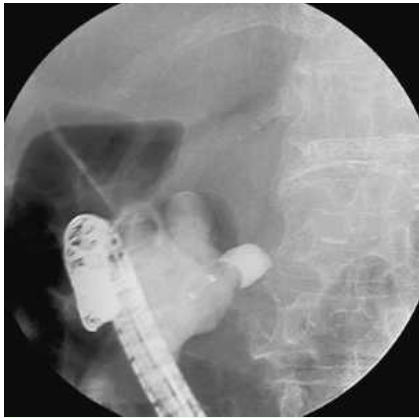


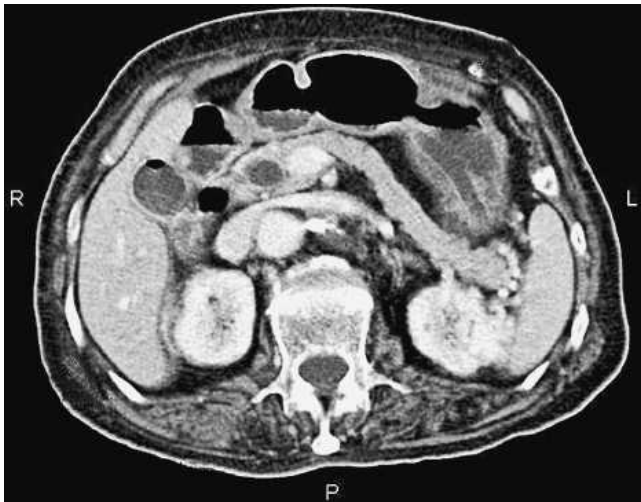
## Reconnecting “missing” part of duct by needle knife using rendezvous technique



**Fig. 1** Cut-off sign at the mid extrahepatic common bile duct.

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 cholangiopancreatography (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]. En-



**Fig. 2** Air in the gallbladder, but no mass obstructing the common bile duct.



**Fig. 3** Percutaneous cholangiogram confirmed complete obstruction of the mid common bile duct.



**Fig. 4** A triple-lumen needle knife was introduced intraductally with the tip pointed against the thin wall of the complete obstruction of the common duct.



**Fig. 5** A puncture was successfully made into the upstream disconnected duct.



**Fig. 6** A 10-Fr plastic stent was inserted to bridge the duct.

doscopy 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.

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