

## A Single Therapeutic Echo Endoscope Used for Combined Transgastric and Transpapillary Drainage of a Pancreatic Abscess

The design of endoscopic ultrasound (EUS) instruments has been improved to provide a wide therapeutic channel and an elevator to facilitate the movement of needles and medical devices. These improvements make it possible to carry out combined ultrasound and endoscopic approaches in the pancreas and duodenal papilla, with ultrasound examination of surrounding fluid collections [1–5]. Cystogastrostomy is a particularly interesting field for therapeutic endosonography, with major advantages over conventional therapeutic endoscopy – including increased safety, access to distant collections, and differentiation of cystic lesions [5]. Although cystoenterostomy is an effective form of treatment, it does not provide treatment for impaired ductal drainage [3]. We report here on the use of a combined EUS and endoscopic retrograde cholangiopancreatography procedure using a single echo endoscope.

A 39-year-old patient receiving hemodialysis presented with pain and fever and a large infected collection around the pancreatic tail, several months after an episode of biliary acute necrotizing pancreatitis. Cystogastrostomy was initially carried out under EUS guidance using a therapeutic Pentax EG-3830-UT echo endoscope (Pentax Europe, Hamburg, Germany) connected to an EUB-6500 processor (Hitachi Medical Systems, Heverlee, Belgium). A 19-gauge needle (Wilson-Cook EUSN-19-T, Cook Ireland Ltd., Limerick, Ireland) was used to puncture the abscess and fill the collection with contrast medium after microbacterial sampling (Figure [1]). A 0.035-in Jagwire (Boston Scientific, Maastricht, The Netherlands) was inserted into the collection, and the cystogastrostomy was enlarged with a 6-Fr and 8.5-Fr diathermic sheath (Boucard, Uccle, Belgium) in order to place a 4-cm 10-Fr double-pigtail stent (RMS, Lennik, Belgium). The procedure was immediately followed by transpapillary pancreatography and pancreatic sphincterotomy with the same echo endoscope (Figure [2]). Access to the papilla and the pan-



Figure 1 Transgastric drainage of a pancreatic abscess. Figure 2 Biliopancreatography carried out with the side-viewing echo endoscope before pancreatic sphincterotomy and placement of a pancreatic stent. Figure 3 Combined transgastric and transpapillary drainage, carried out with a single therapeutic echo endoscope.

creatic duct was easily achieved using this 50° oblique therapeutic endoscope with a 120° viewing angle. However, some expertise is needed due to its longer and stiffer end in comparison with a duodenoscope. A large fistula was observed in the caudal pancreatic duct and was treated by placement of a pancreatic Zimmon 7-Fr 8-cm stent (Cook, Strombeek-Bever, Belgium) (Figure [3]). The patient was discharged the day after the procedure without complications. Antibiotics were administered for 5 days, and the pancreatic stent was extracted 3 months later, with complete resolution of the fistula and fluid collection.

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