Two-step endoscopic ultrasound-guided rendezvous technique combined with antegrade electrohydraulic lithotripsy for a huge pancreatic duct stone

The endoscopic ultrasound-guided rendezvous technique (EUS-RV) is a useful procedure for difficult cannulation of not only the bile duct, but also the pancreatic duct [1–4]. In addition, if guidewire passage from the papilla across the obstructed site is challenging, antegrade guidewire insertion under EUS guidance is one of several possible methods. Herein, we describe a two-step EUS-RV technique combined with antegrade electrohydraulic lithotripsy (EHL) for a huge pancreatic duct stone.

A 48-year-old man was admitted to our hospital with obstructive jaundice and acute pancreatitis due to chronic pancreatitis that was complicated by a huge pancreatic duct stone. Endoscopic retrograde cholangiopancreatography (ERCP) was therefore attempted. First, biliary drainage using a fully covered metal stent was successfully performed. Pancreatic duct drainage was then attempted; however, although pancreatic duct cannulation could be performed, passage of the guidewire failed. Therefore, EUS-guided pancreatic duct drainage was performed using a 6-mm covered metal stent.

After 1 week, the covered metal stent was removed and, to obtain partial stone fragmentation, antegrade EHL was attempted using a digital single-operator choledangiopancreatoscope (SPY-DS; Boston Scientific) (▶ Fig.1 and ▶ Fig.2). After stone fragmentation had been partially obtained, guidewire passage beyond the huge pancreatic duct stone was again attempted, with the guidewire this time being successfully deployed (▶ Fig.3a). Next, the duodenoscope was removed, leaving the guidewire in position, before the scope was advanced again to the region of the papilla. The guidewire was grasped using biopsy forceps (▶ Fig.3b) and pulled into the scope channel. An ERCP catheter was then inserted, with successful passage of the catheter across the huge pancreatic duct stone. Finally, a plastic stent was deployed without any adverse events (▶ Fig.3c; ▶ Video 1).

Our technique may be useful for situations where it is challenging to pass the guidewire across a site of obstruction.
Competing interests

None

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Fig. 3 Radiographic images showing: a the guidewire being successfully advanced beyond the huge pancreatic duct stone and through the ampulla of Vater into the intestine; b endoscopic ultrasound-guided rendezvous technique being attempted; c a plastic stent successfully deployed.