

Supplementary Table 1 The grades of endoscopic retrograde cholangiopancreatography difficulty were defined by the grading system

Grade 1

Deep cannulation of duct of interest, main papilla, or sampling

Biliary stent removal or exchange

Grade 2

Biliary stone extraction < 10 mm

Treatment of biliary leaks and extrahepatic strictures (benign or malignant)

Placement of prophylactic pancreatic stents

Grade 3

Biliary stone extraction > 10 mm

Removal of pancreatic stones that are mobile and < 5 mm

Minor papilla cannulation in divisum and therapy

Removal of internally migrated biliary stents

Intraductal imaging, biopsy, or fine-needle aspiration

Management of acute or recurrent pancreatitis

Treatment of pancreatic strictures

Treatment of hilar tumors

Treatment of benign biliary strictures, hilum, and above

Management of suspected sphincter of oddi dysfunction (with or without manometry)

Grade 4

Removal of internally migrated pancreatic stents

Intraductal image-guided therapy (*e.g.*, photodynamic therapy)

Removal of pancreatic stones that are impacted and/or > 5 mm

Removal of intrahepatic stones

Pseudocyst drainage or necrosectomy

Ampullectomy

ERCP after a Whipple procedure or Roux-en-Y Gastric Bypass

ERCP: Endoscopic retrograde cholangiopancreatography.