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Difficult biliary intubation and papillotomy

PD Dr. S. Ullrich 2019

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Agenda

1. Positioning
2. Anatomy of the papilla
3. Intubation of the bile duct
4. EPT / Needle knive / Precut
5. Diverticula
6. Postsurgical anatomy
7. No success – what to do?
8. Papillectomy

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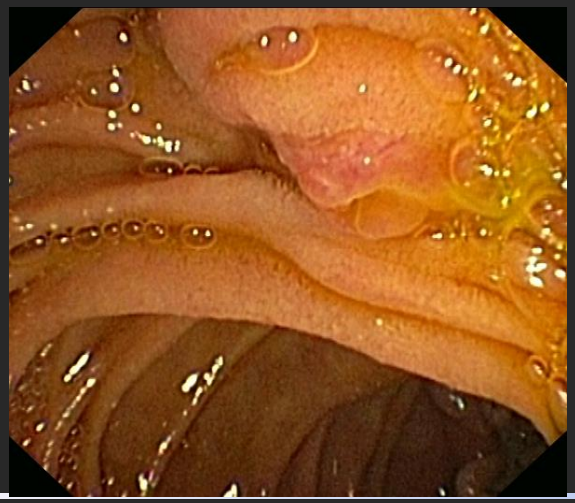
Positioning

Where is the papilla?

Short / long position



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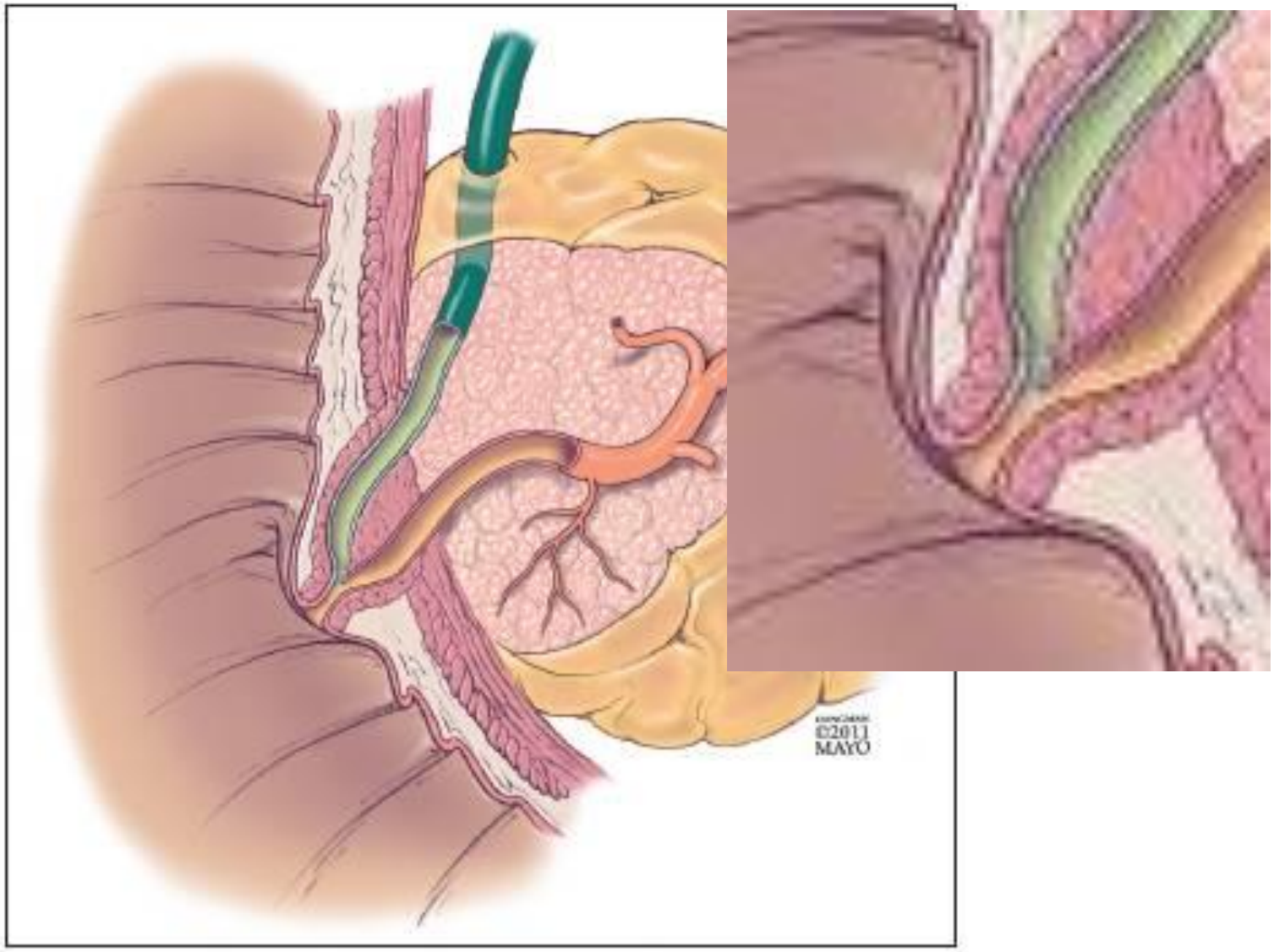
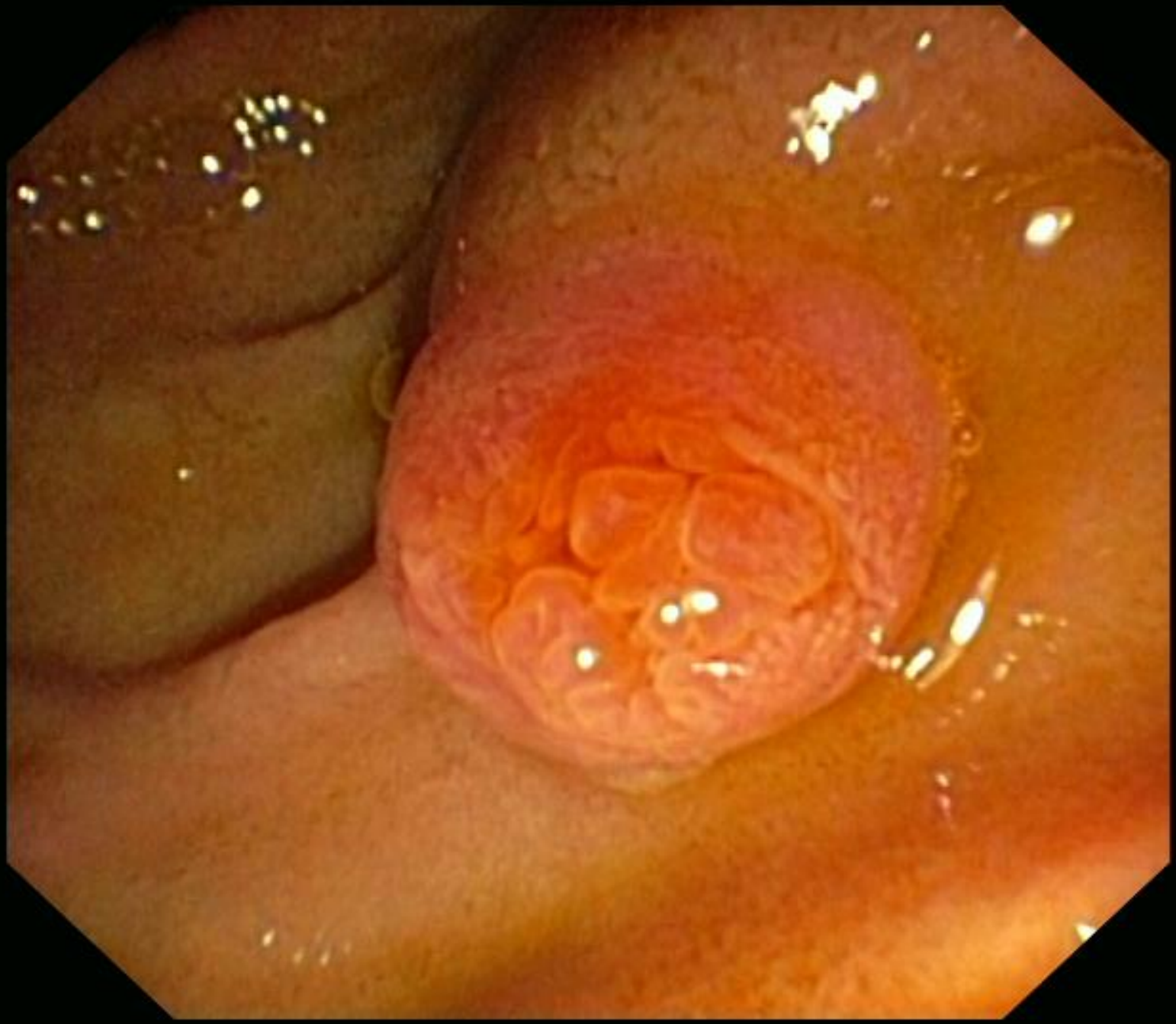
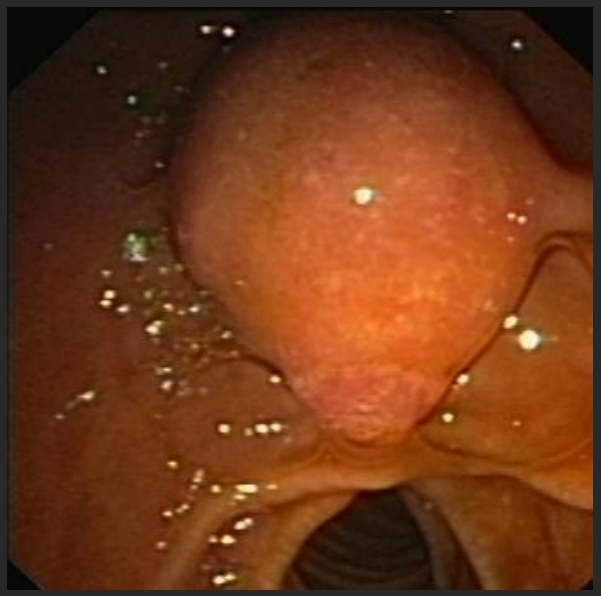
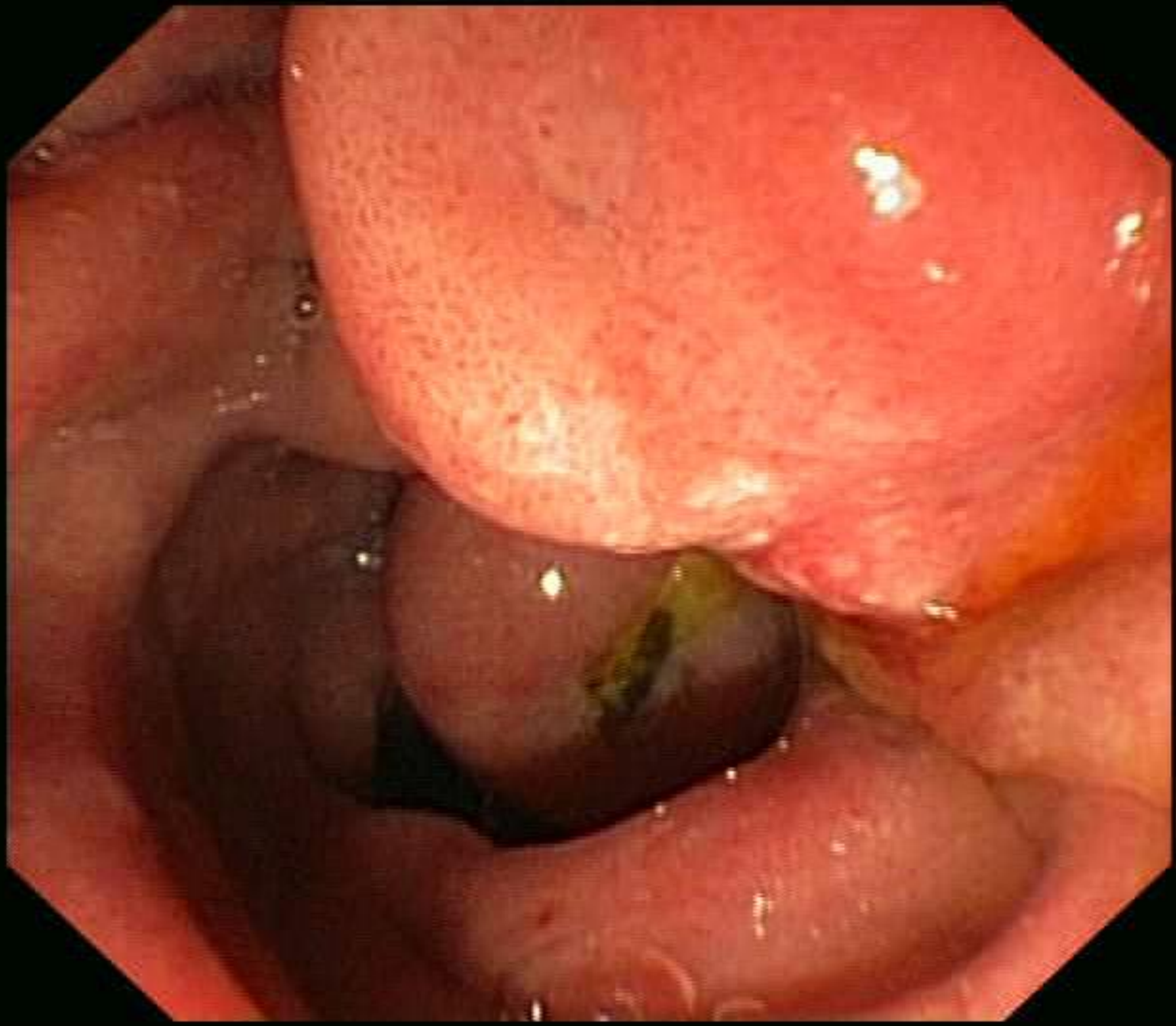
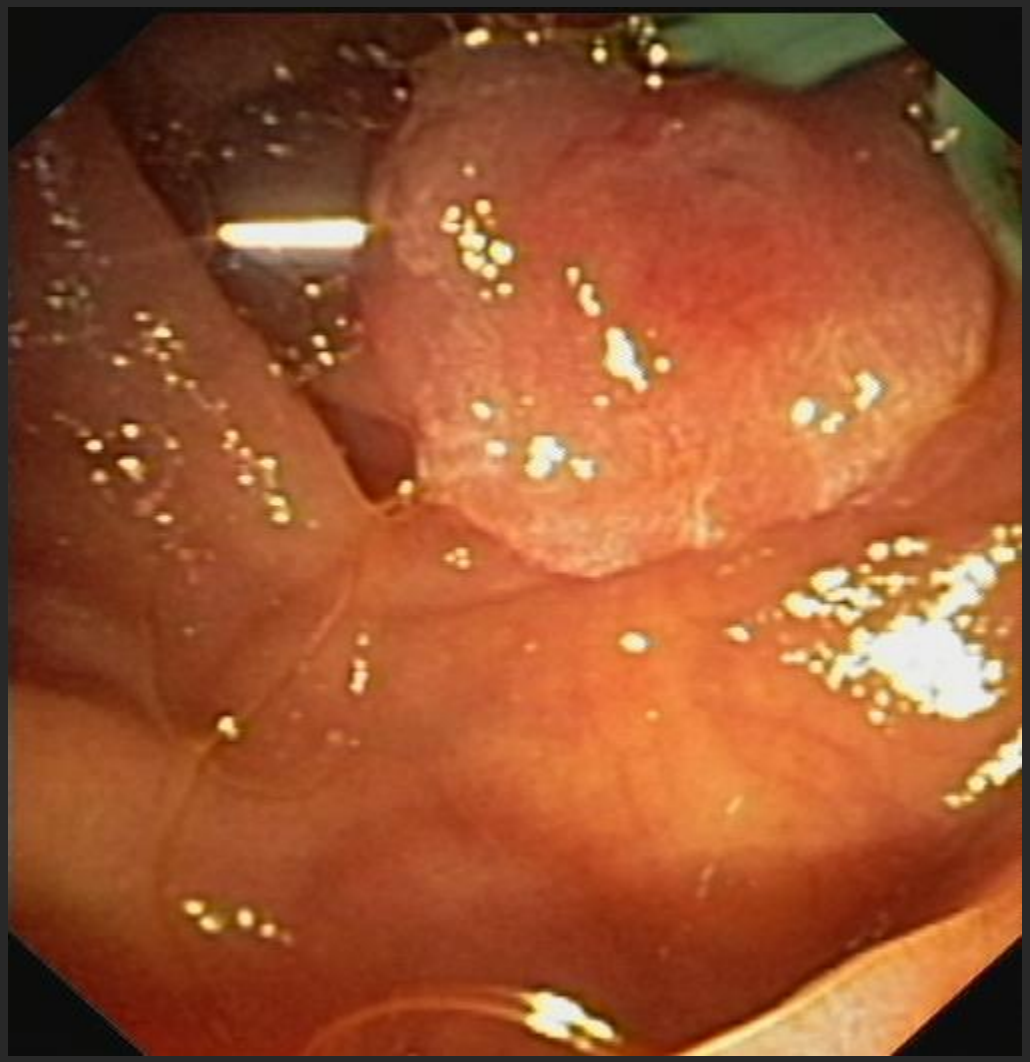


DaVee et al. Ann Gastroenterol 2012; 25 (4): 291-302







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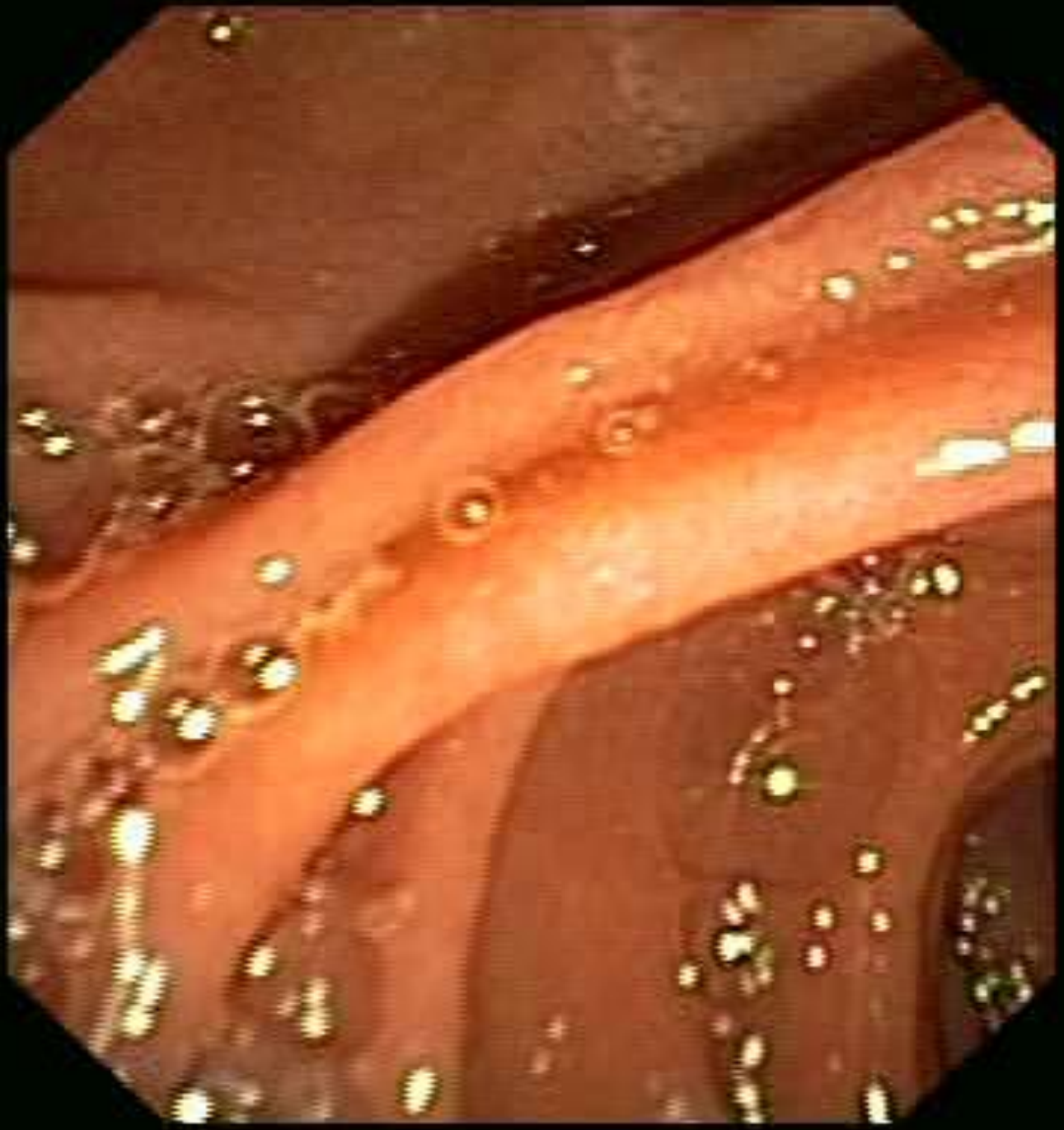

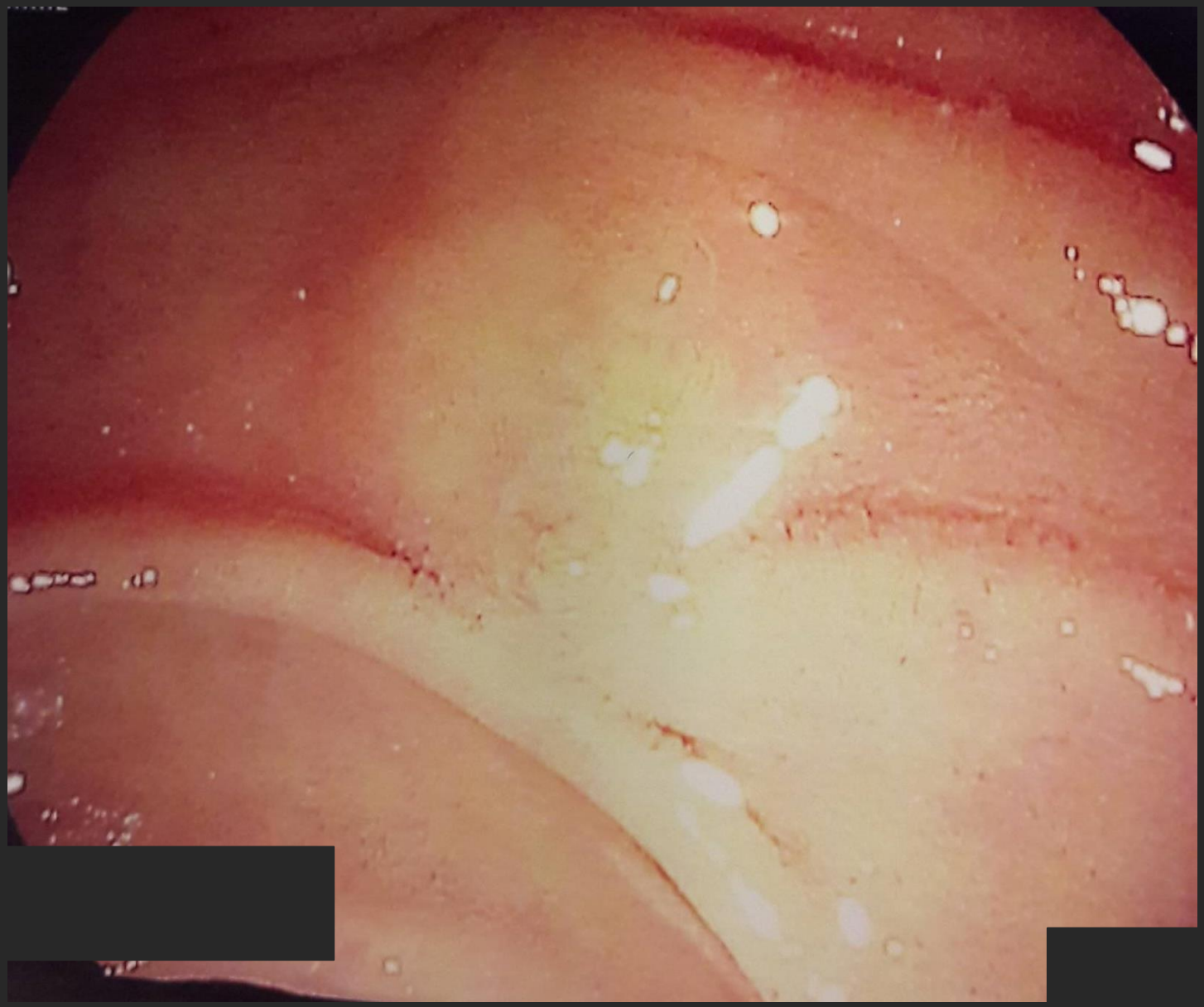

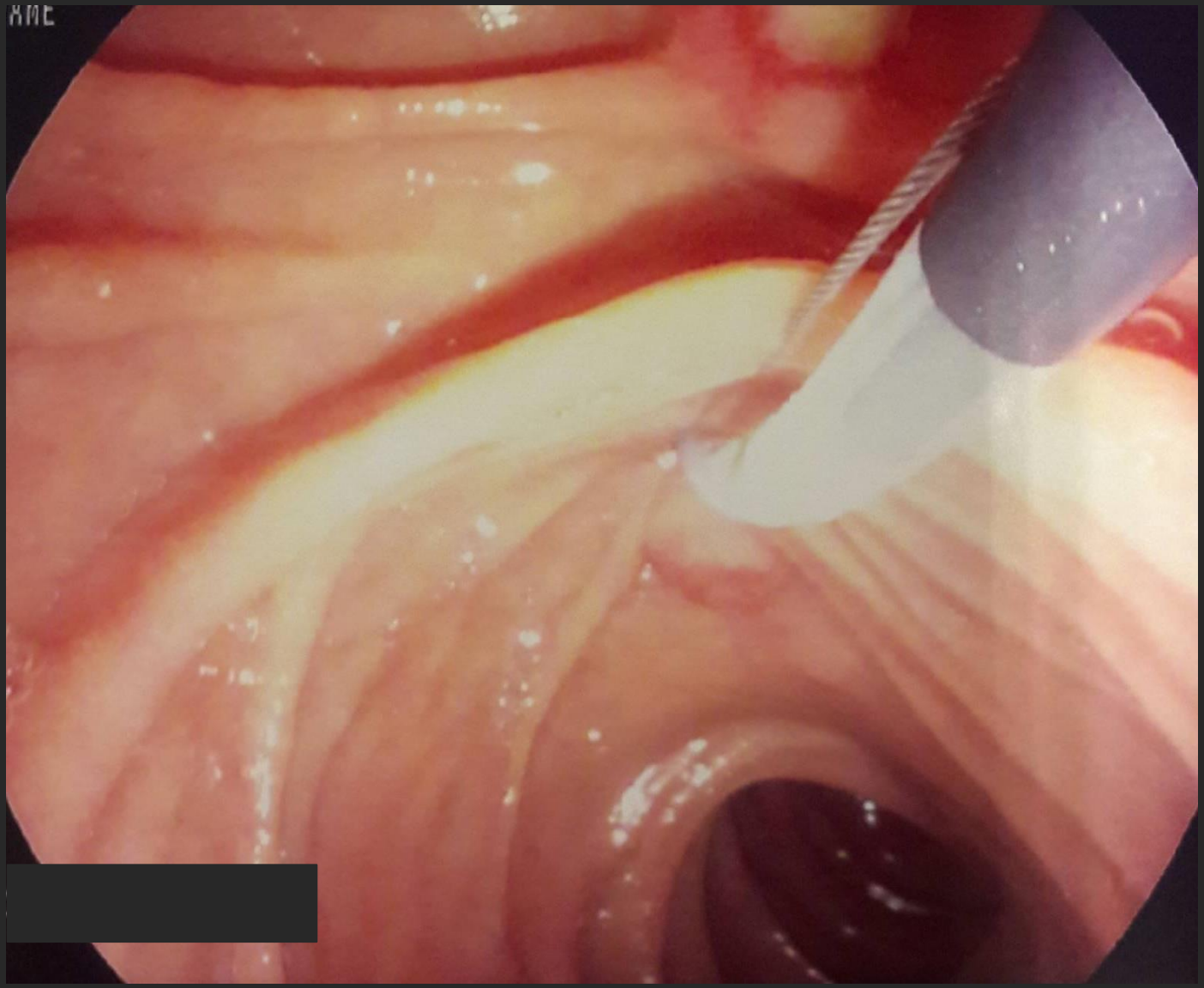

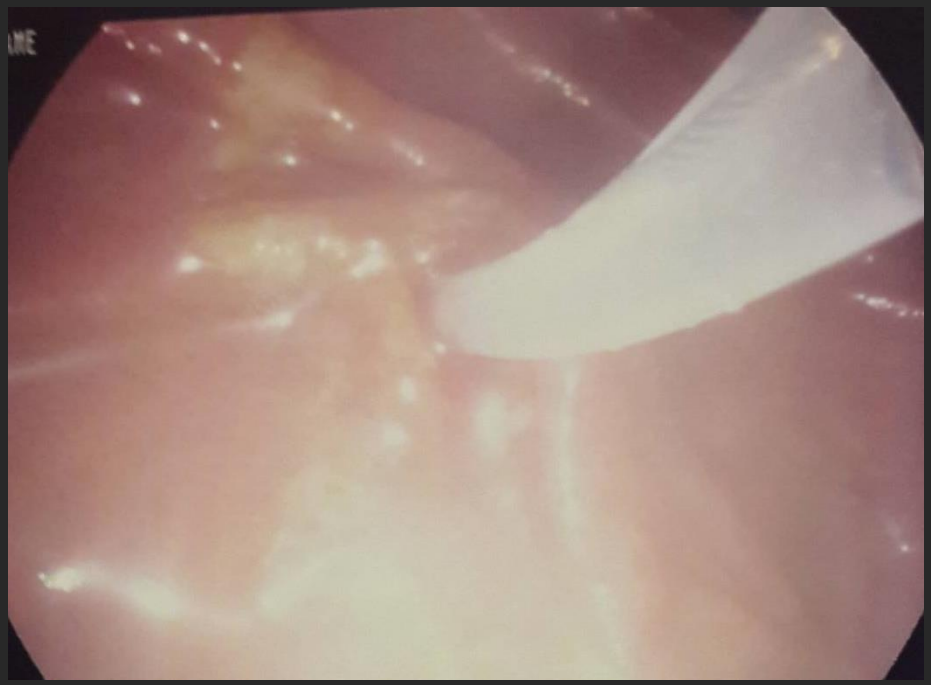

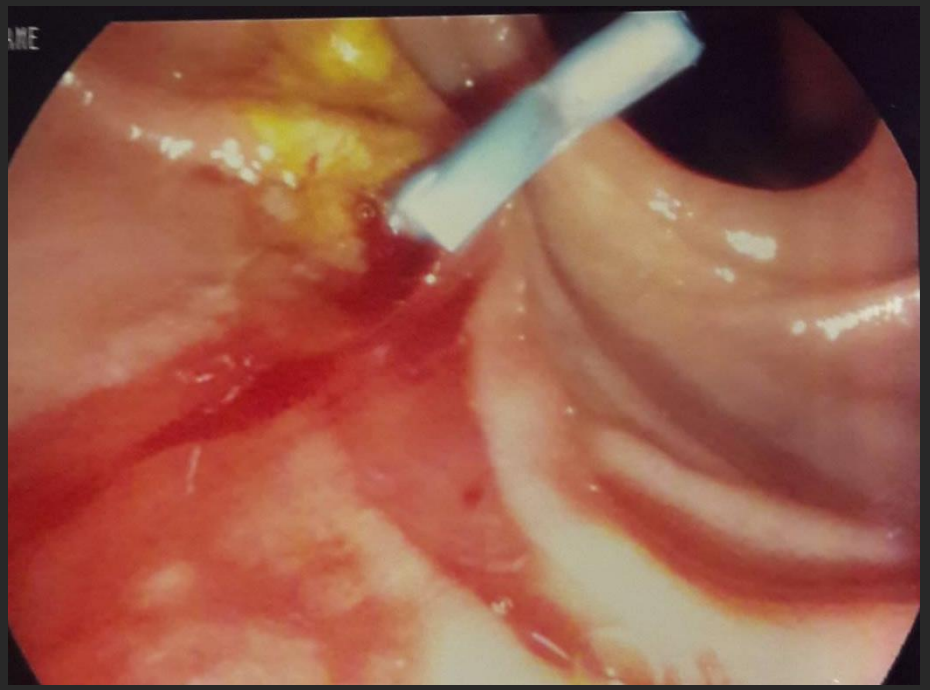

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Papillary cannulation and sphincterotomy techniques at ERCP: European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline

Authors

Pier Alberto Testoni[1], Alberto Mariani[1], Lars Aabakken[2], Marianna Arvanitakis[3], Erwan Bories[4], Guido Costamagna[5], Jacques Devière[3], Mario Dinis-Ribeiro[6], Jean-Marc Dumonceau[7], Marc Giovannini[4], Tibor Gyokeres[8], Michael Hafner[9], Jorma Halttunen[10], Cesare Hassan[11], Luis Lopes[12], Ioannis S. Papanikolaou[13], Tony C. Tham[14], Andrea Tringali[5], Jeanin van Hooft[15], Earl J. Williams[16]

1. ESGE suggests that difficult biliary cannulation is defined by the presence of one or more of the following: more than 5 contacts with the papilla whilst attempting to cannulate; more than 5 minutes spent attempting to cannulate following visualization of the papilla; more than one unintended pancreatic duct cannulation or opacification (lowquality evidence,weak recommendation).
2. ESGE recommends the guidewire-assisted technique for primary biliary cannulation, since it reduces the risk of post-ERCP pancreatitis (moderate quality evidence, strong recommendation).
3. ESGE recommends using pancreatic guidewire (PGW)-assisted biliary cannulation in patients where biliary cannulation is difficult and repeated unintentional access to the main pancreatic duct occurs (moderate quality evidence, strong recommendation). ESGE recommends attempting prophylactic pancreatic stenting in all patients with PGW-assisted attempts at biliary cannulation (moderate quality evidence, strong recommendation).
4. ESGE recommends needle-knife fistulotomy as the preferred technique for precutting (moderate quality evidence, strong recommendation). ESGE suggests that precutting should be used only by endoscopists who achieve selective biliary cannulation in more than 80% of cases using standard cannulation techniques (low quality evidence, weak recommendation). When access to the pancreatic duct is easy to obtain, ESGE suggests placement of a pancreatic stent prior to precutting (moderate quality evidence, weak recommendation).

DOI http://dx.doi.org/ 10.1055/s-0042-108641 Published online: 2016 Endoscopy

Papillary cannulation and sphincterotomy techniques at ERCP: European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline

5. ESGE recommends that in patients with a small papilla that is difficult to cannulate, transpancreatic biliary sphincterotomy should be considered if unintentional insertion of a guidewire into the pancreatic duct occurs (moderate quality evidence, strong recommendation). In patients who have had transpancreatic sphincterotomy, ESGE suggests prophylactic pancreatic stenting (moderate quality evidence, strong recommendation).
6. ESGE recommends that mixed current is used for sphincterotomy rather than pure cut current alone, as there is a decreased risk of mild bleeding with the former (moderate quality evidence, strong recommendation).
7. ESGE suggests endoscopic papillary balloon dilation (EPBD) as an alternative to endoscopic sphincterotomy (EST) for extracting CBD stones <8mm in patients without anatomical or clinical contraindications, especially in the presence of coagulopathy or altered anatomy (moderate quality evidence, strong recommendation).
8. ESGE does not recommend routine biliary sphincterotomy for patients undergoing pancreatic sphincterotomy, and suggests that it is reserved for patients in whom there is evidence of coexisting bile duct obstruction or biliary sphincter of Oddi dysfunction (moderate quality evidence, weak recommendation).
9. In patients with periampullary diverticulum (PAD) and difficult cannulation, ESGE suggests that pancreatic duct stent placement followed by precut sphincterotomy or needle-knife fistulotomy are suitable options to achieve cannulation (low quality evidence, weak recommendation).

DOI http://dx.doi.org/ 10.1055/s-0042-108641 Published online: 2016 Endoscopy

Endoscopy 2014; 46: 799–815

Prophylaxis of post-ERCP pancreatitis: European Society of Gastrointestinal Endoscopy (ESGE) Guideline – Updated June 2014

ESGE

Authors

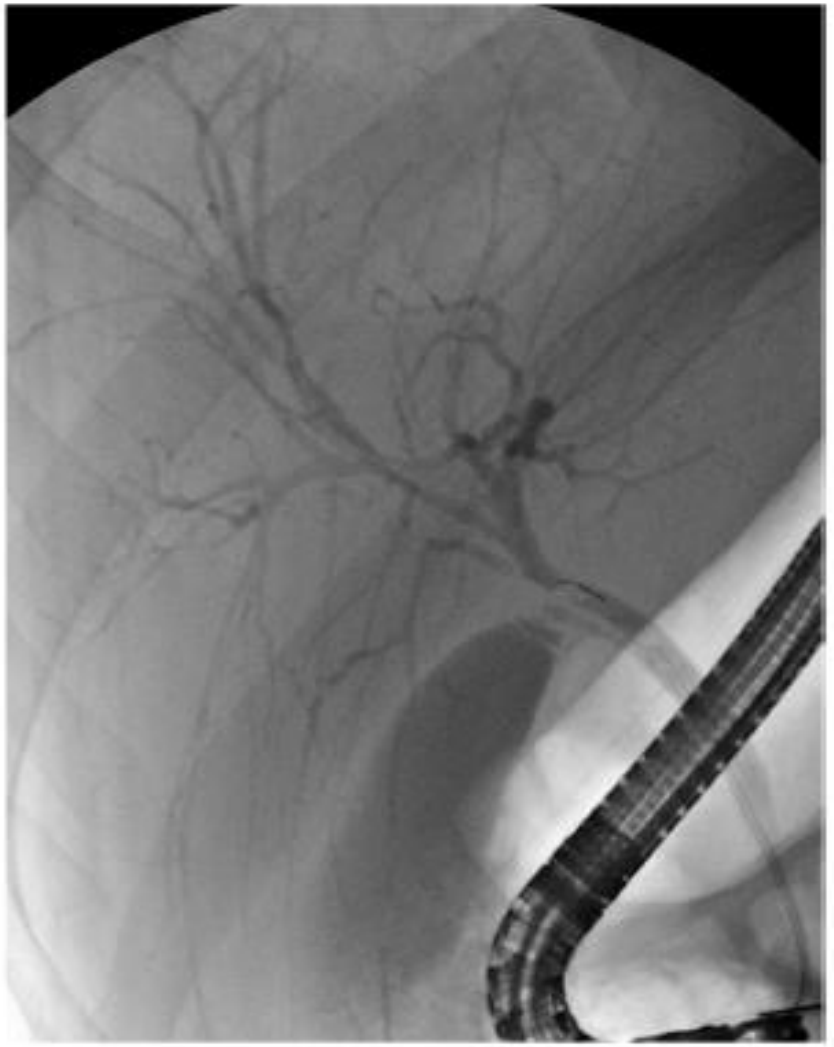
Jean-Marc Dumonceau[1], Angelo Andriulli[2], B. Joseph Elmunzer[3], Alberto Mariani[4], Tobias Meister[5], Jacques Deviere[6], Tomasz Marek[7], Todd H. Baron[8], Cesare Hassan[9], Pier A. Testoni[4], Christine Kapral[10]

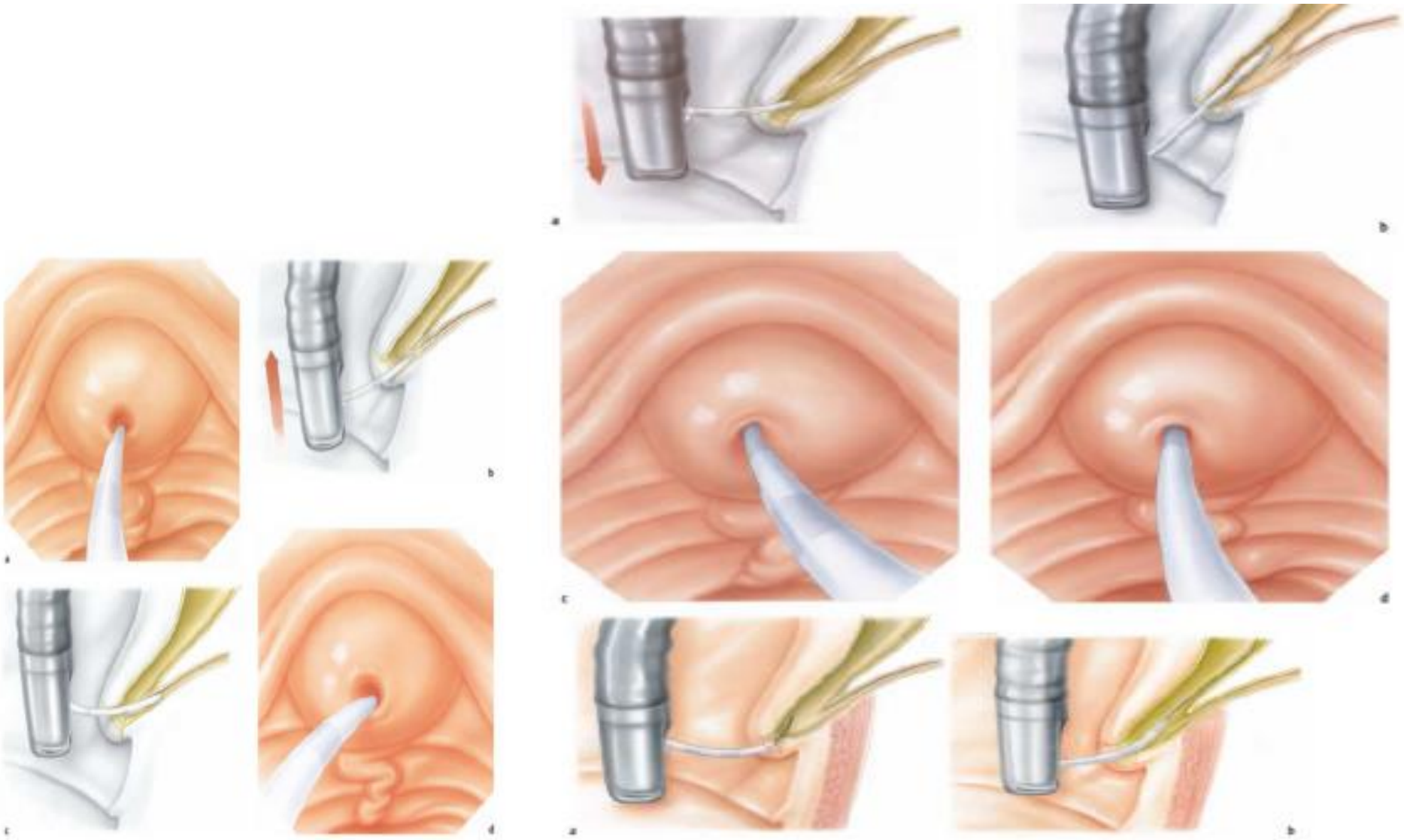
In cases of difficult biliary cannulation, early precut is associated with a lower PEP incidence than persistent attempts using the standard approach but the overall success and complication rates are similar with both approaches.

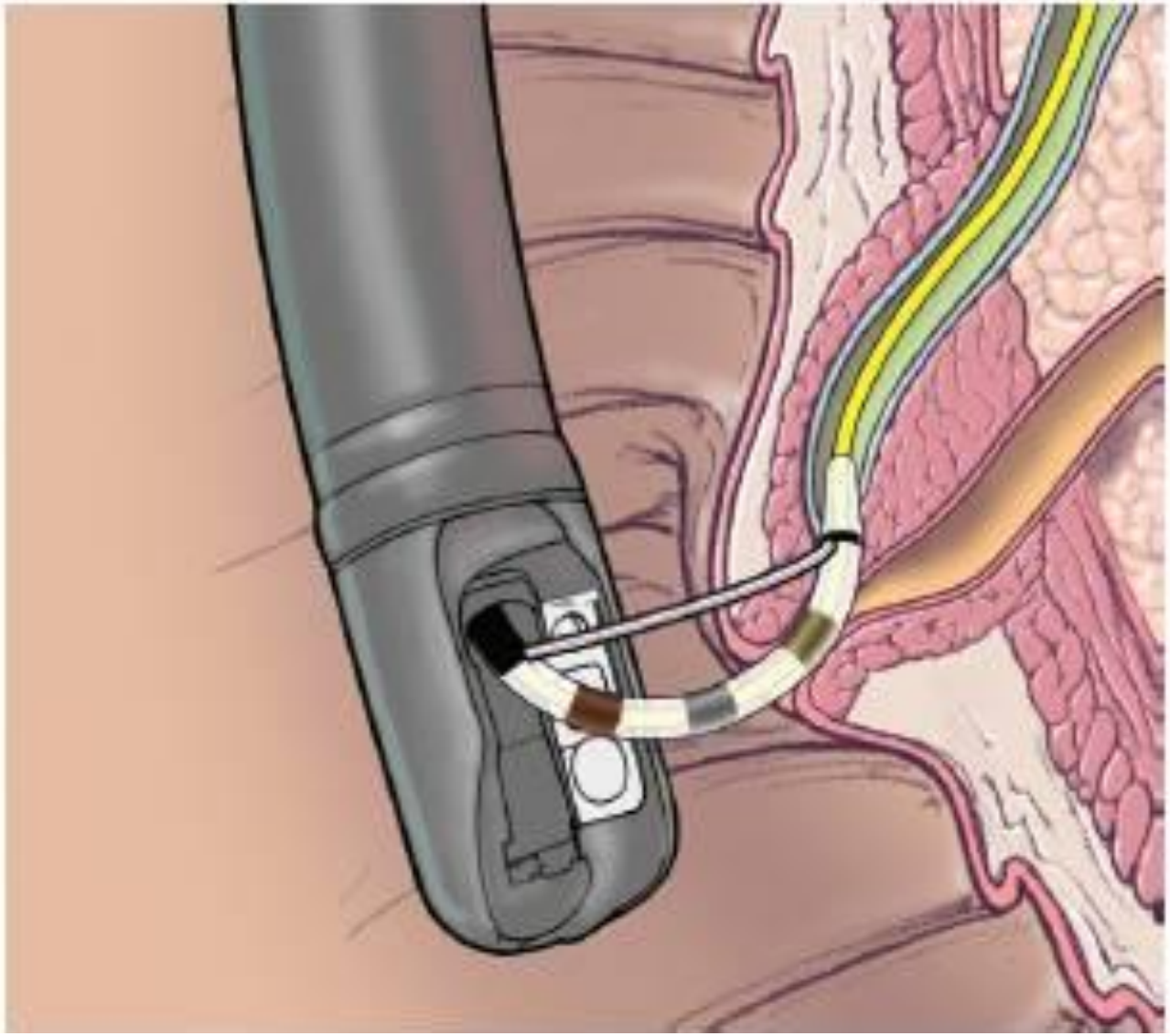
Conventional precut and transpancreatic sphincterotomy present similar success and complication rates; if conventional precut is elected and pancreatic cannulation is easily obtained, ESGE suggests attempting to place a small-diameter (3-Fr or 5-Fr) pancreatic stent to guide the cut and leaving the pancreatic stent in place at the end of ERCP for a minimum of 12–24 hours (Recommendation grade B).

Intubation of the biliary tract

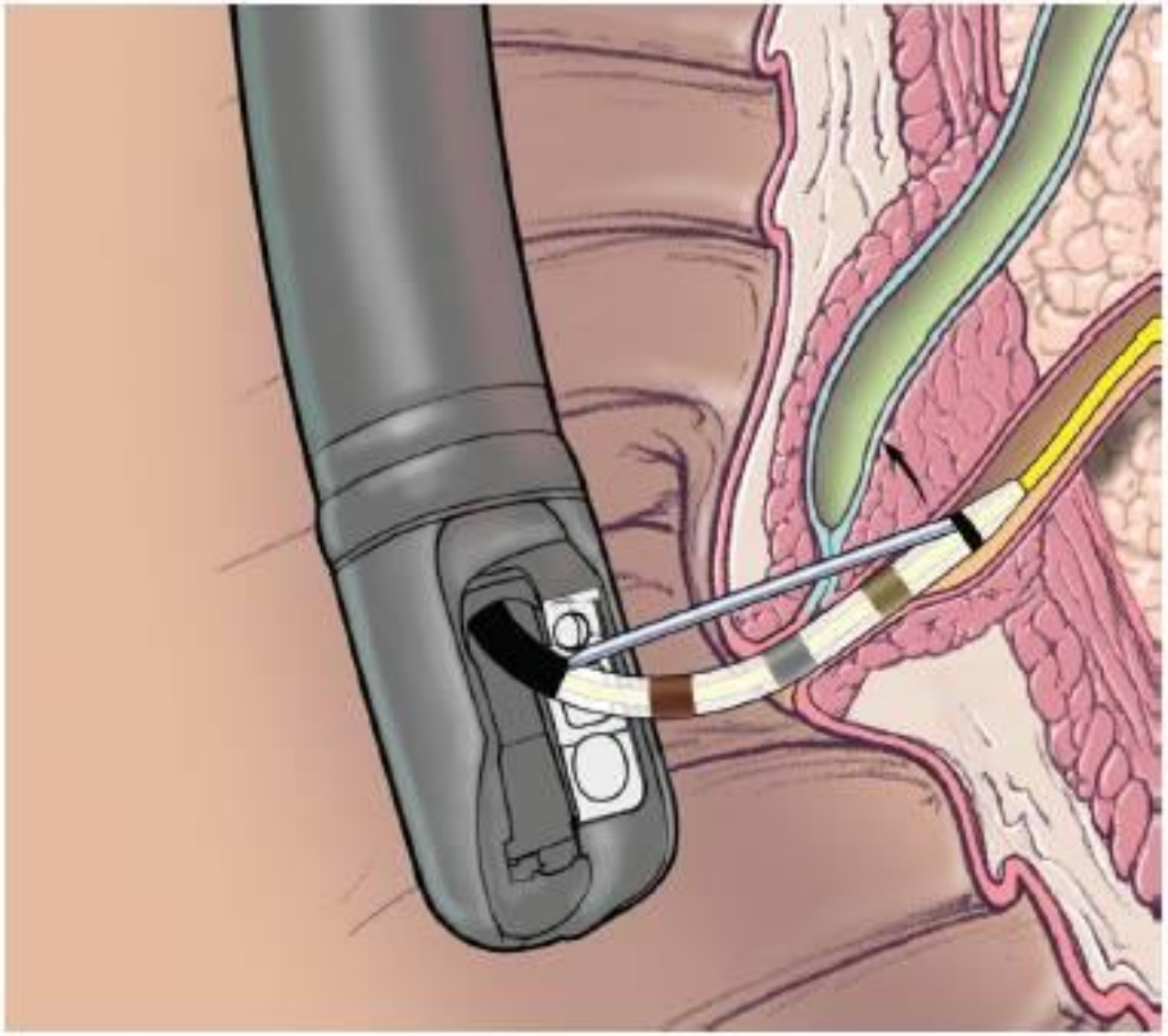
Intubation of the biliary tract







DaVee et al. Ann Gastroenterol 2012; 25 (4): 291-302



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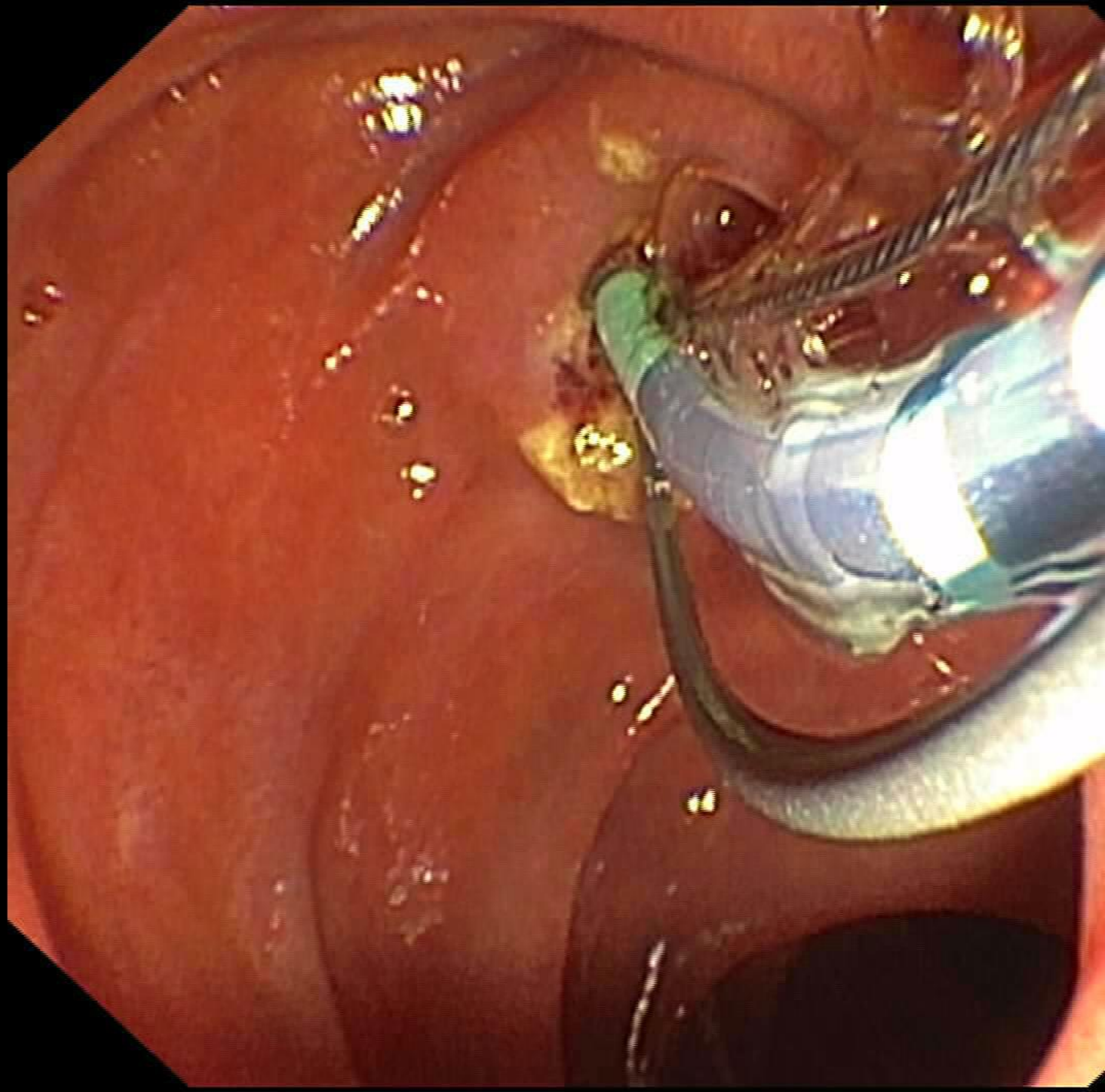
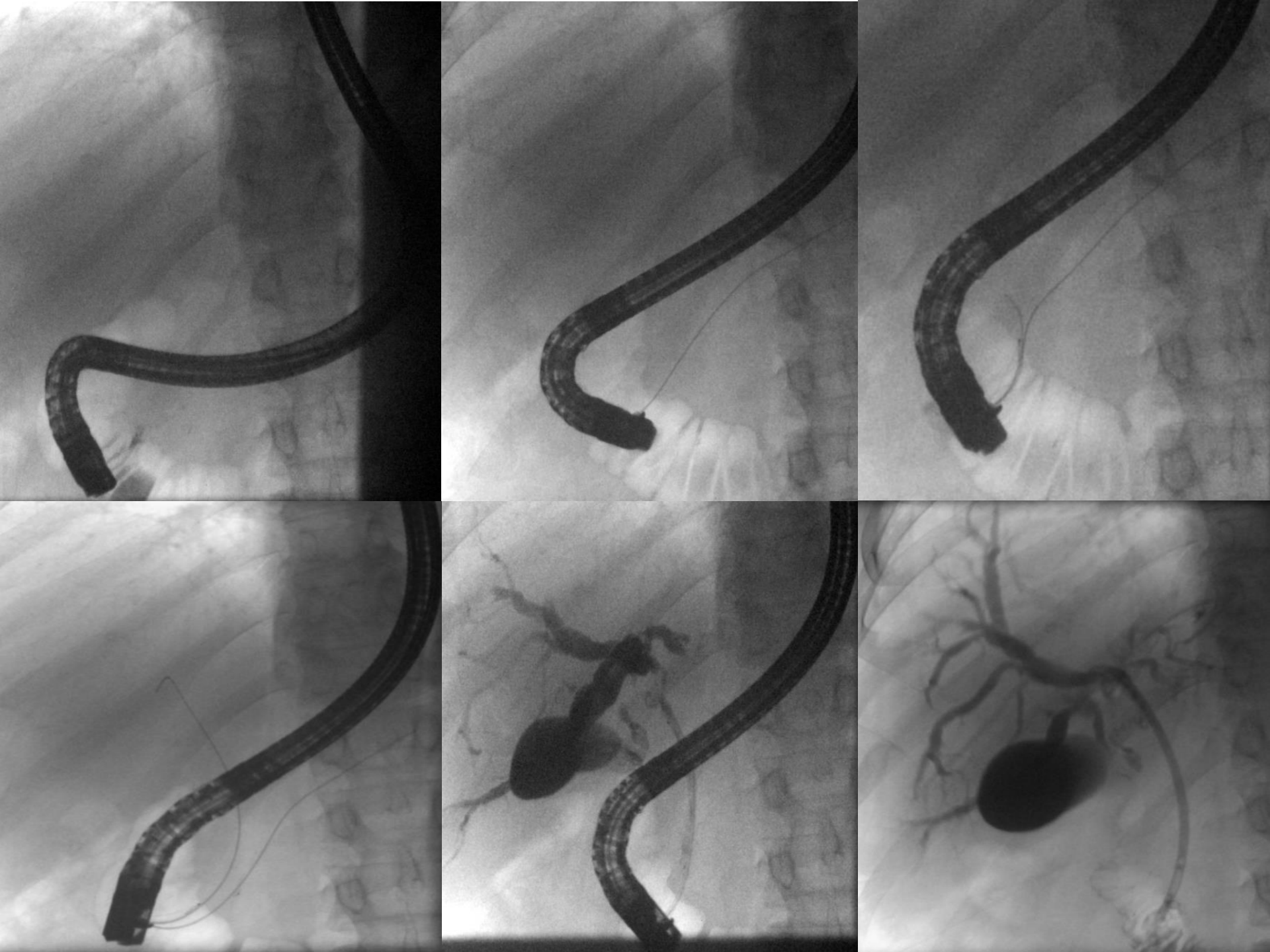
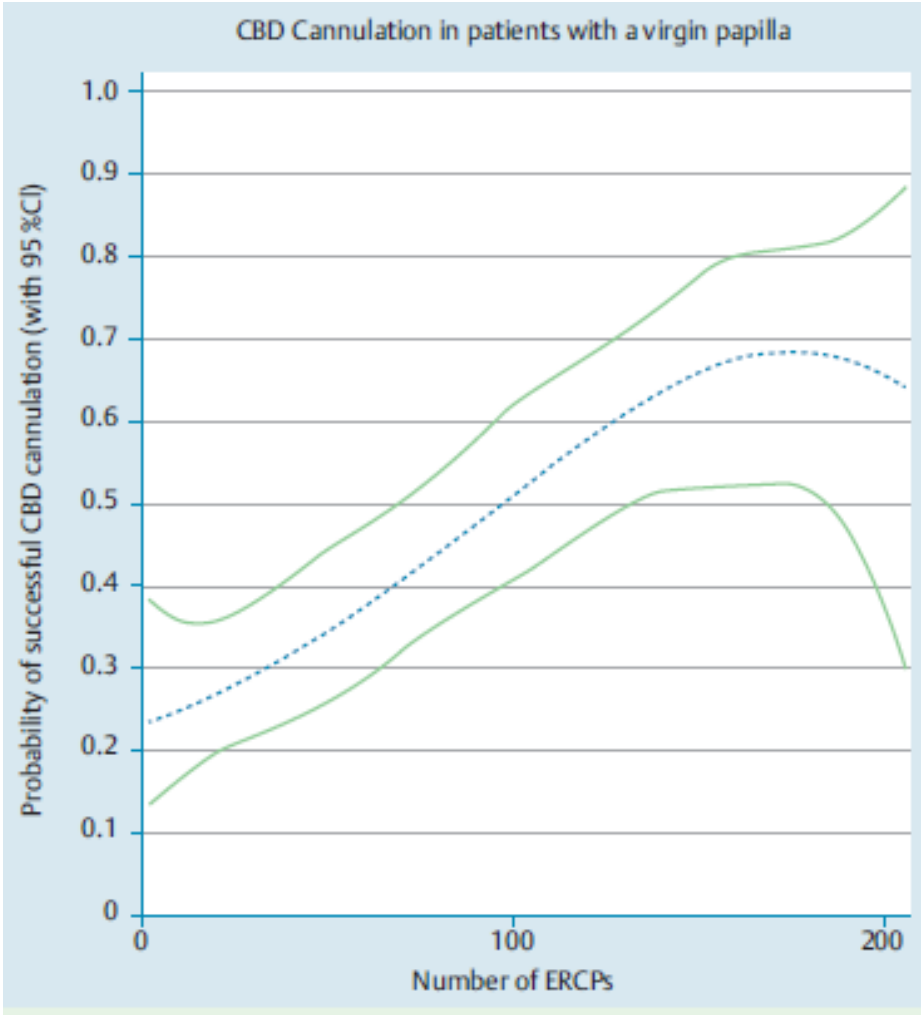
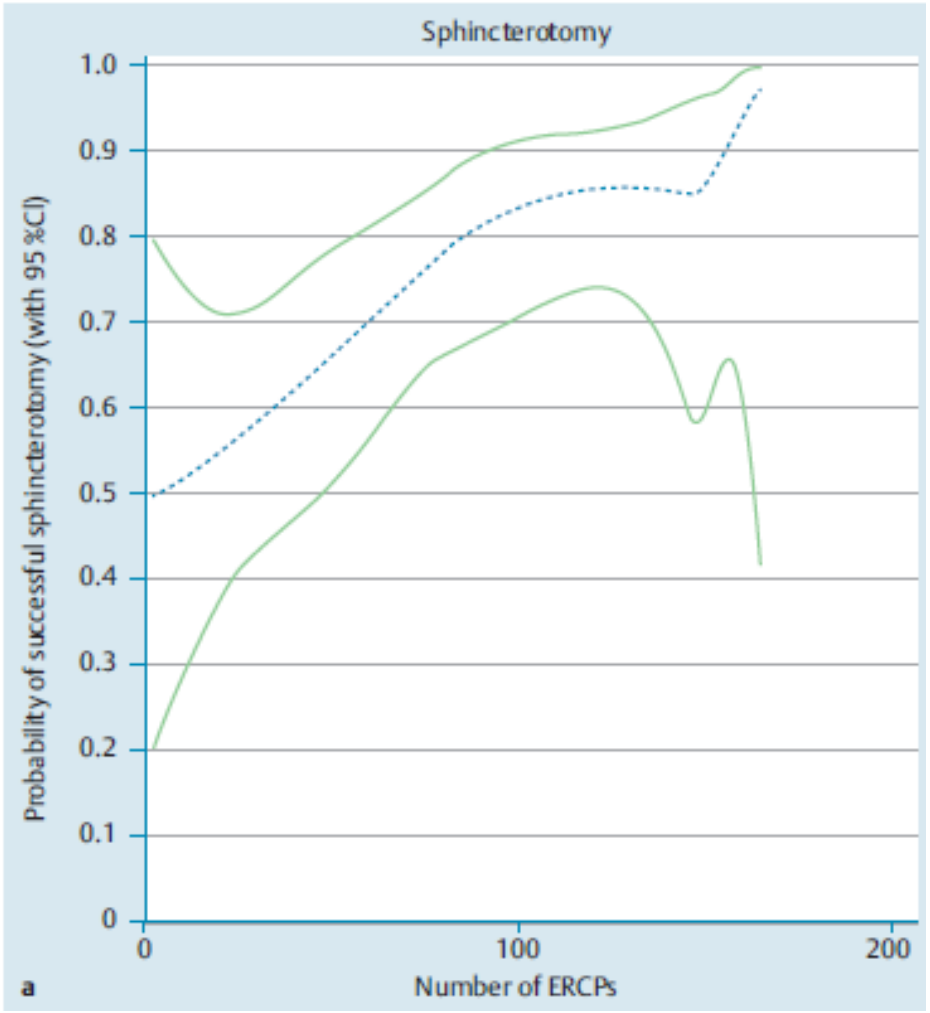
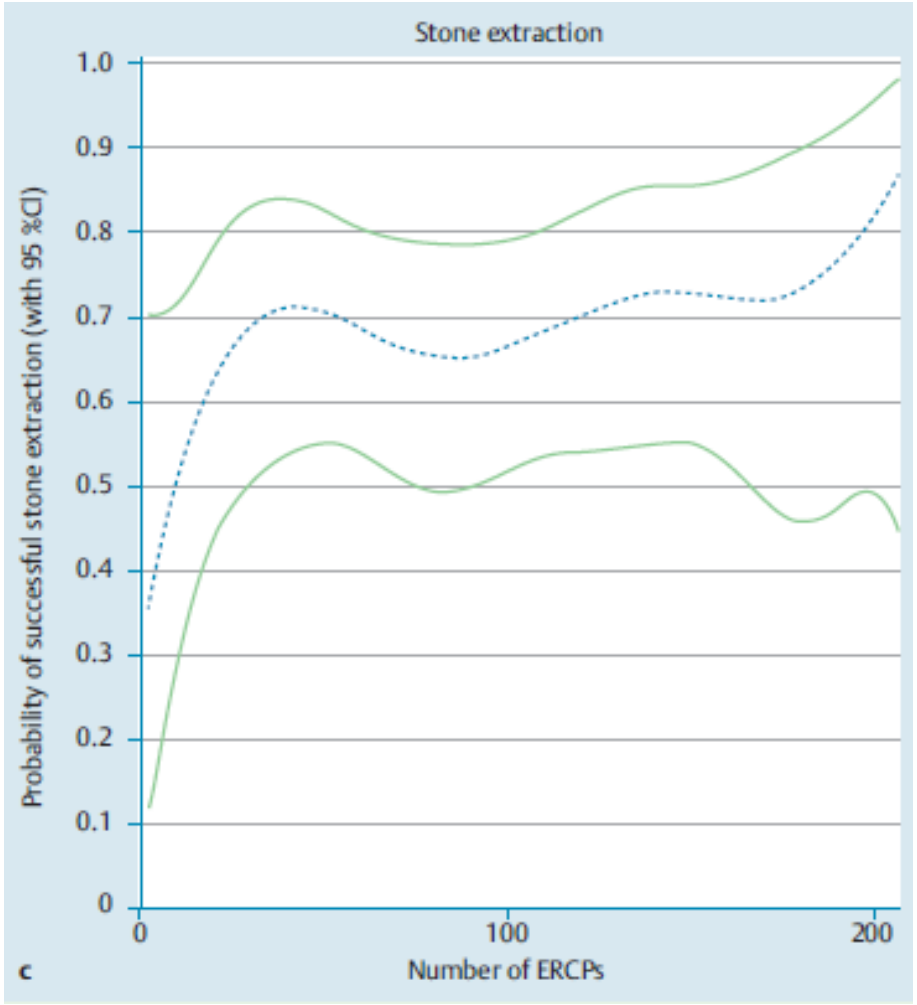


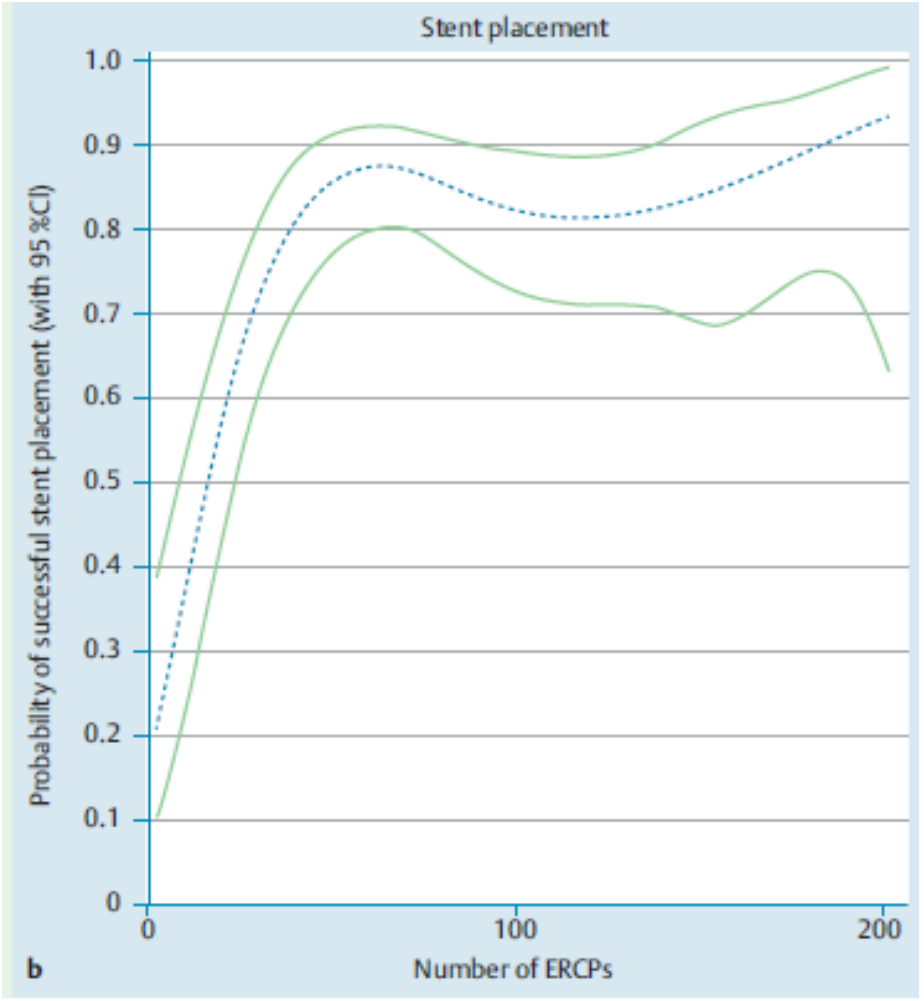






Ekkelenkamp Vivian E et al. Competence development in ERCP … Endoscopy 2014; 46: 949–955





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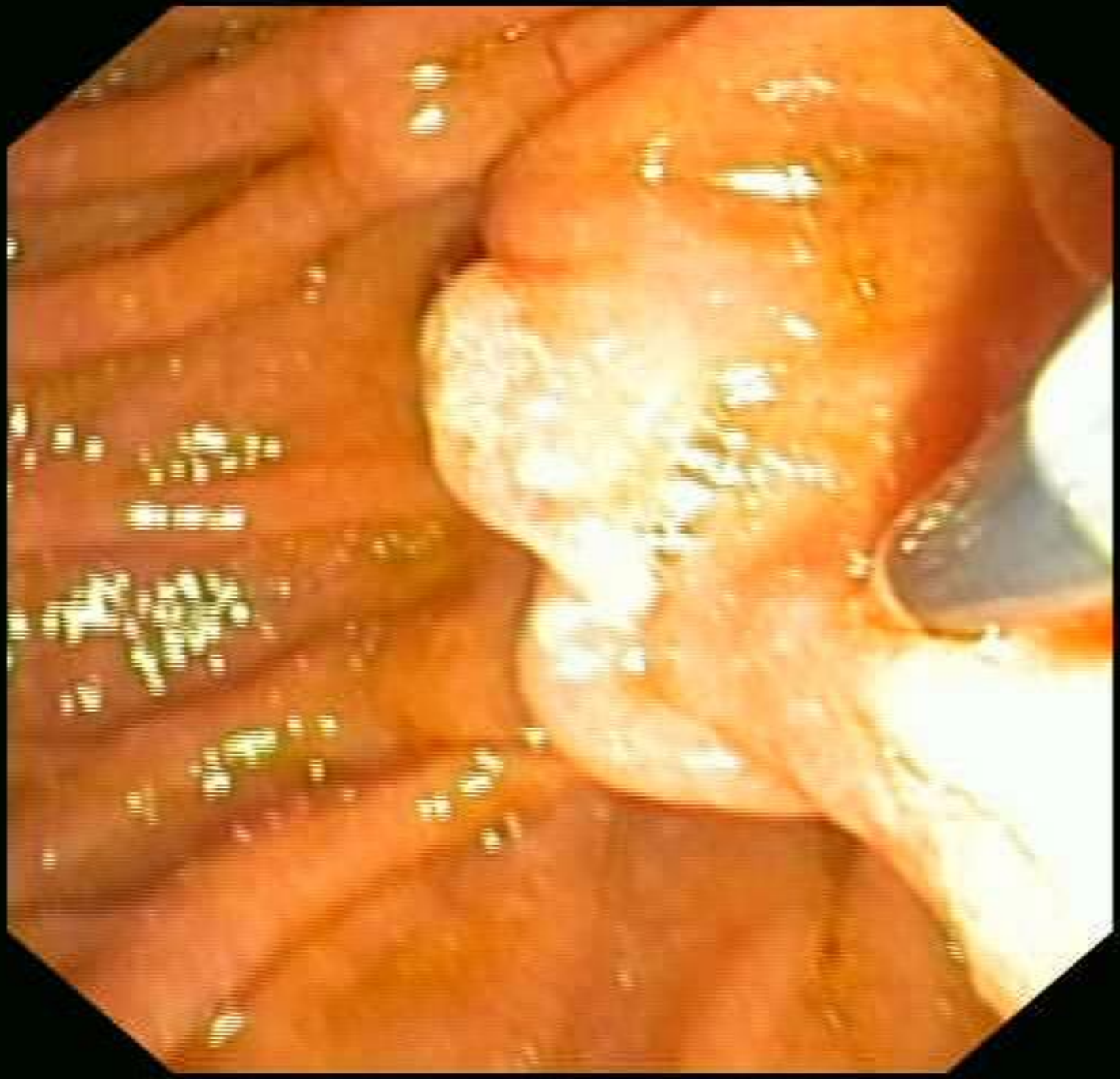

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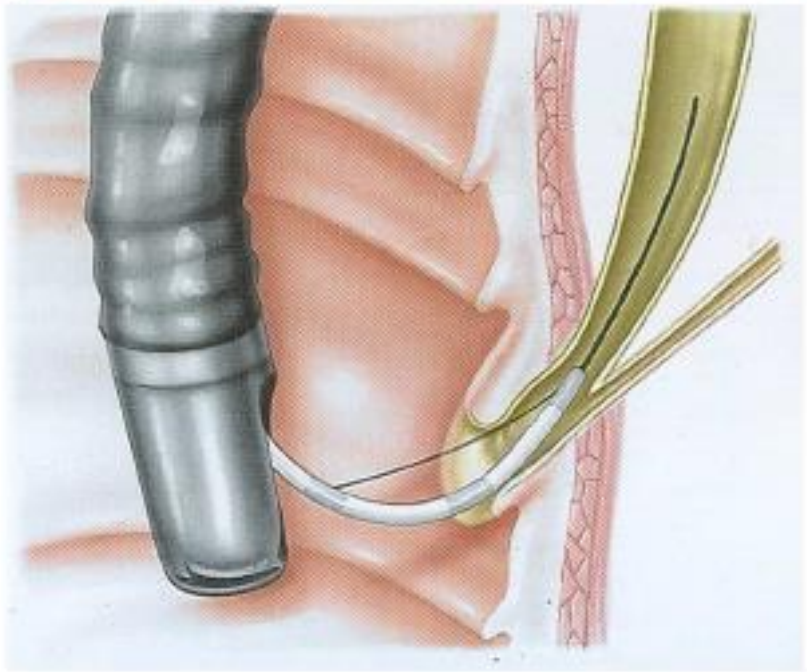
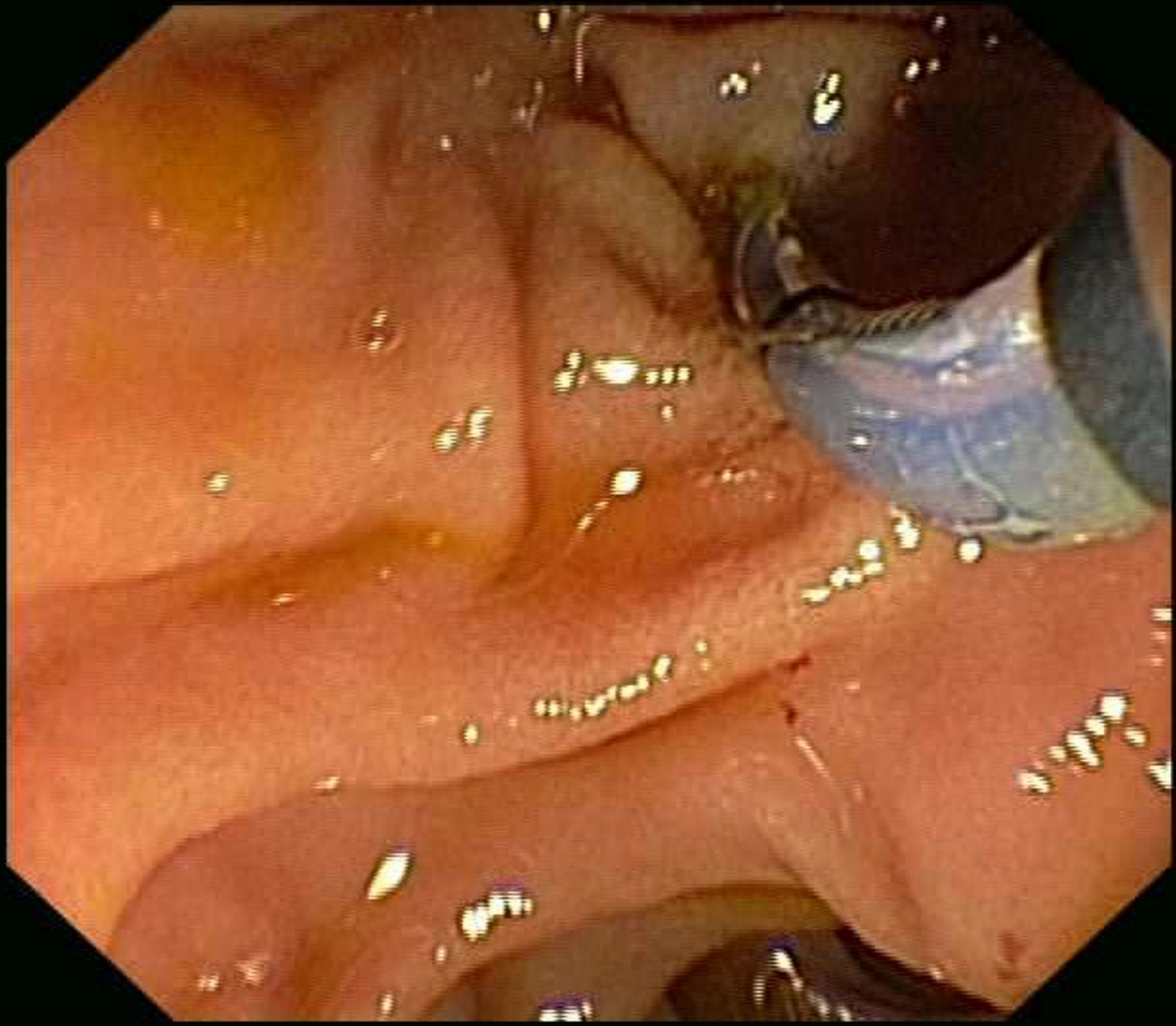
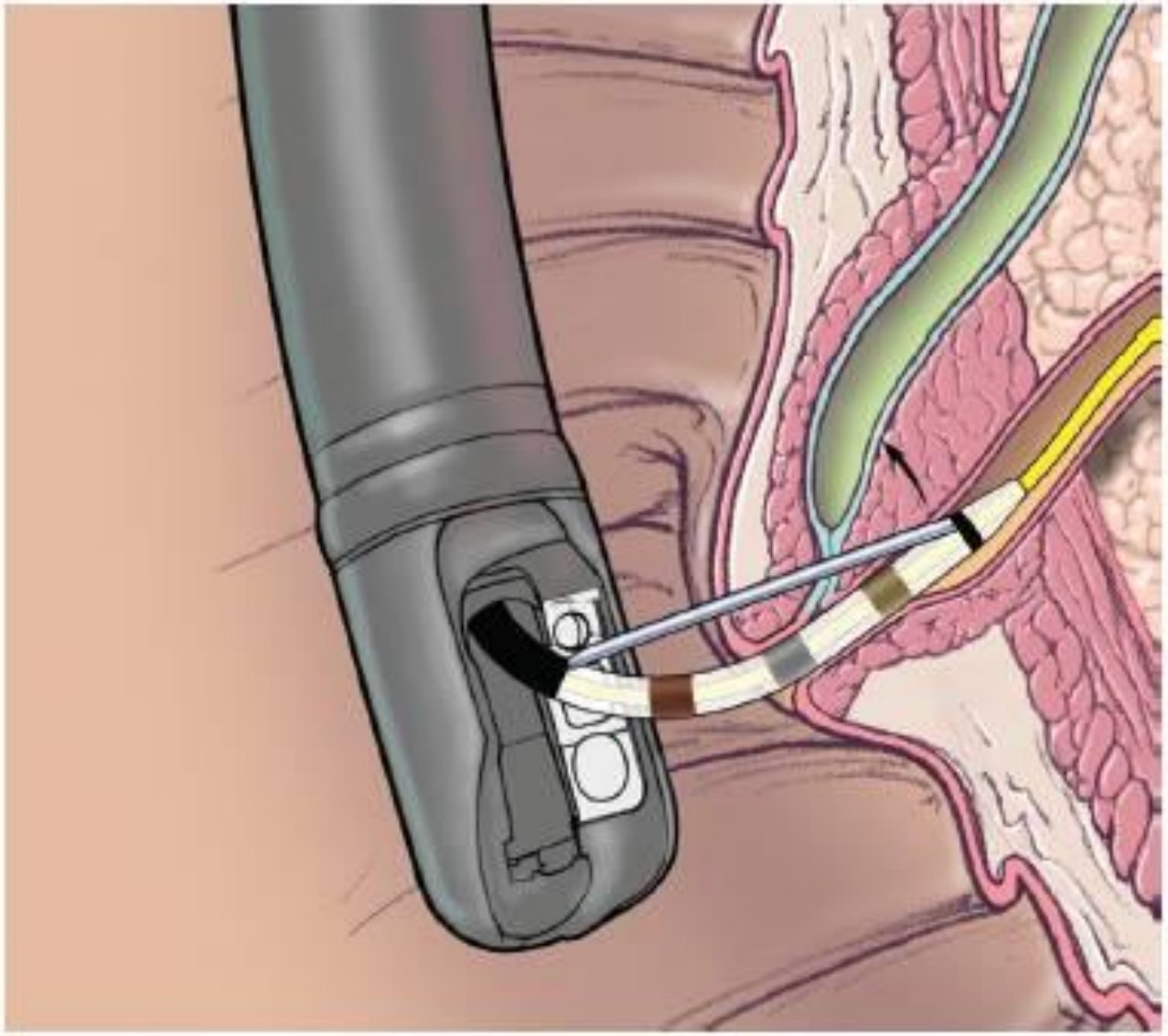
Spincterotomy biliary duct







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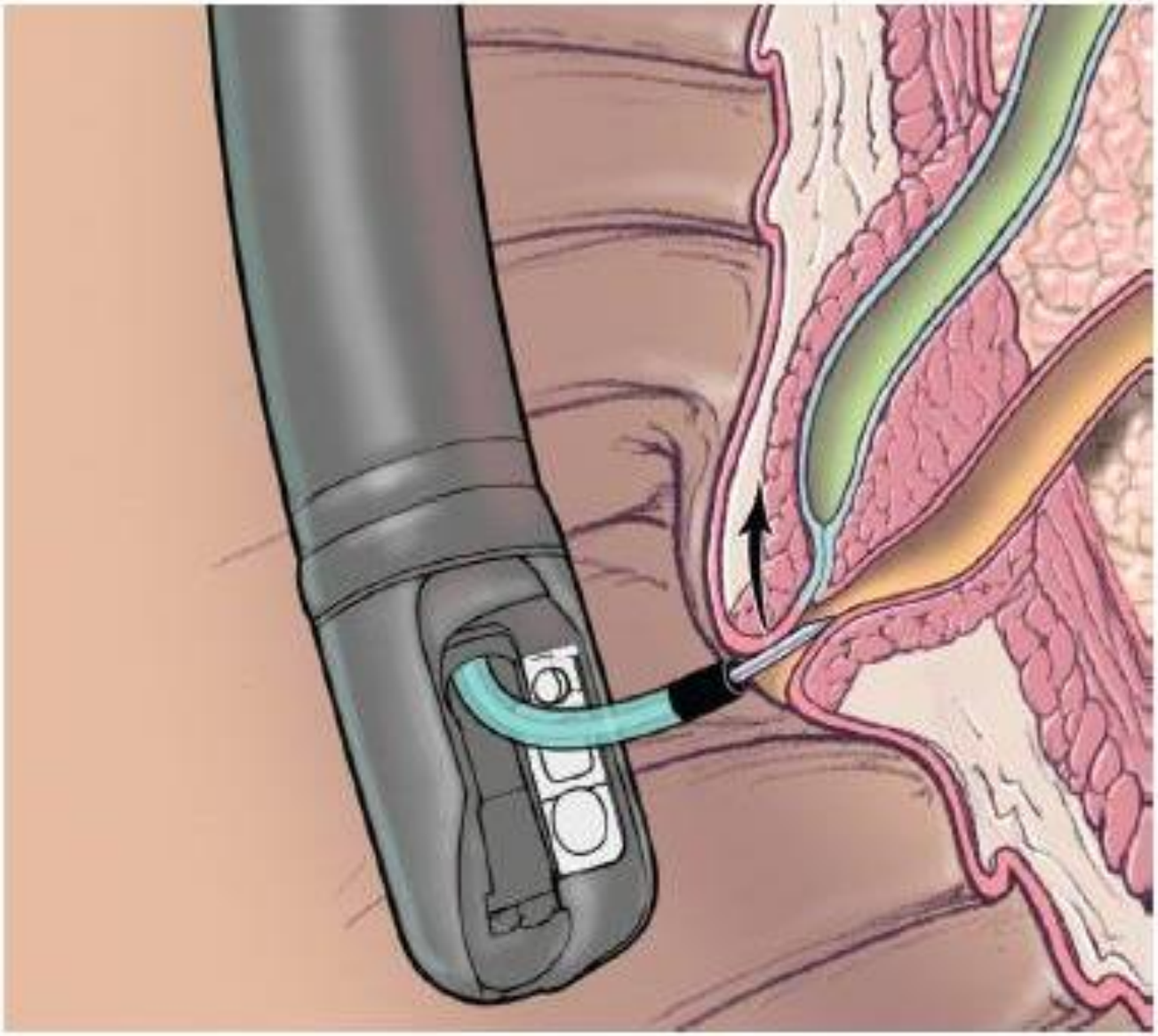

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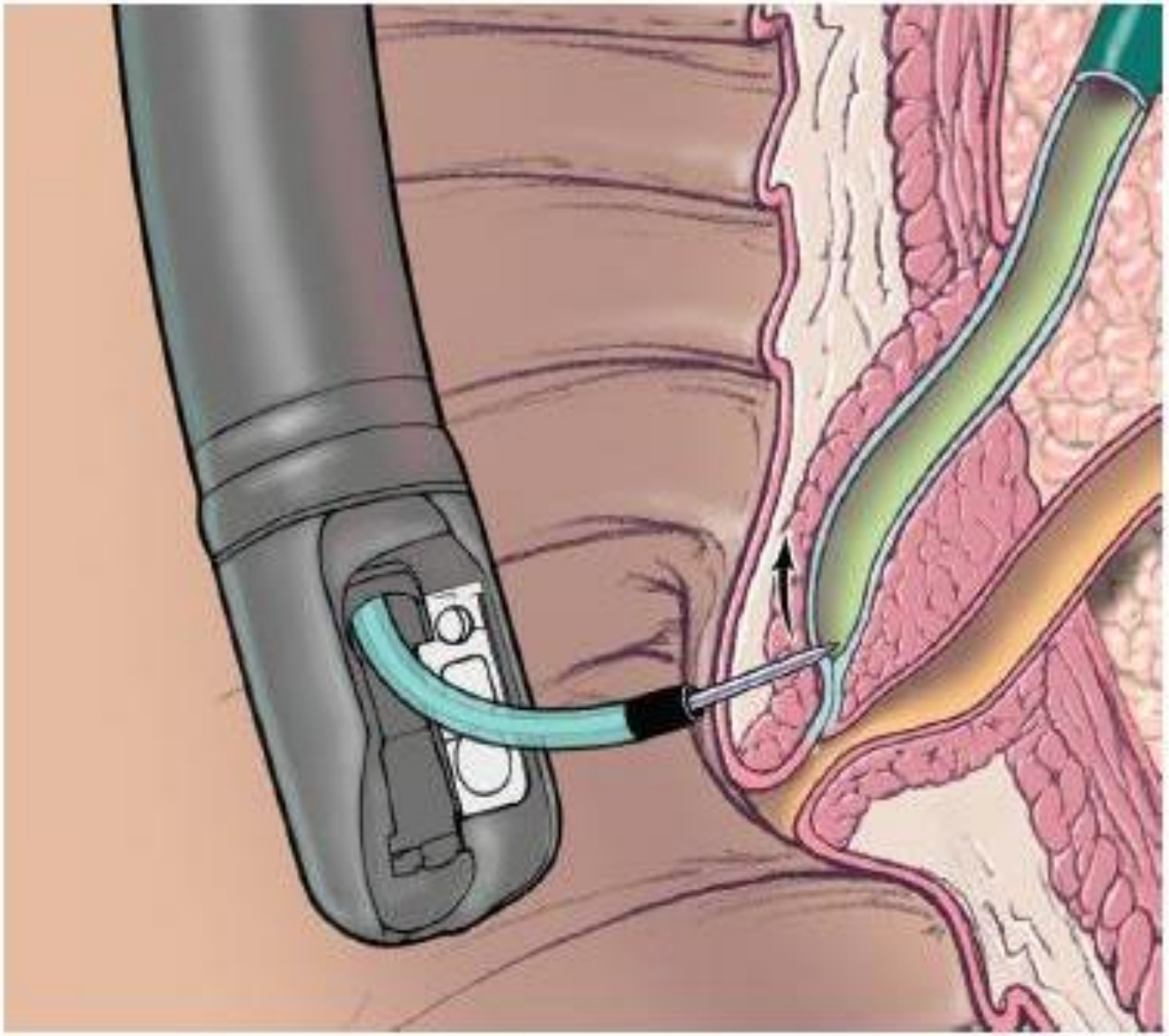

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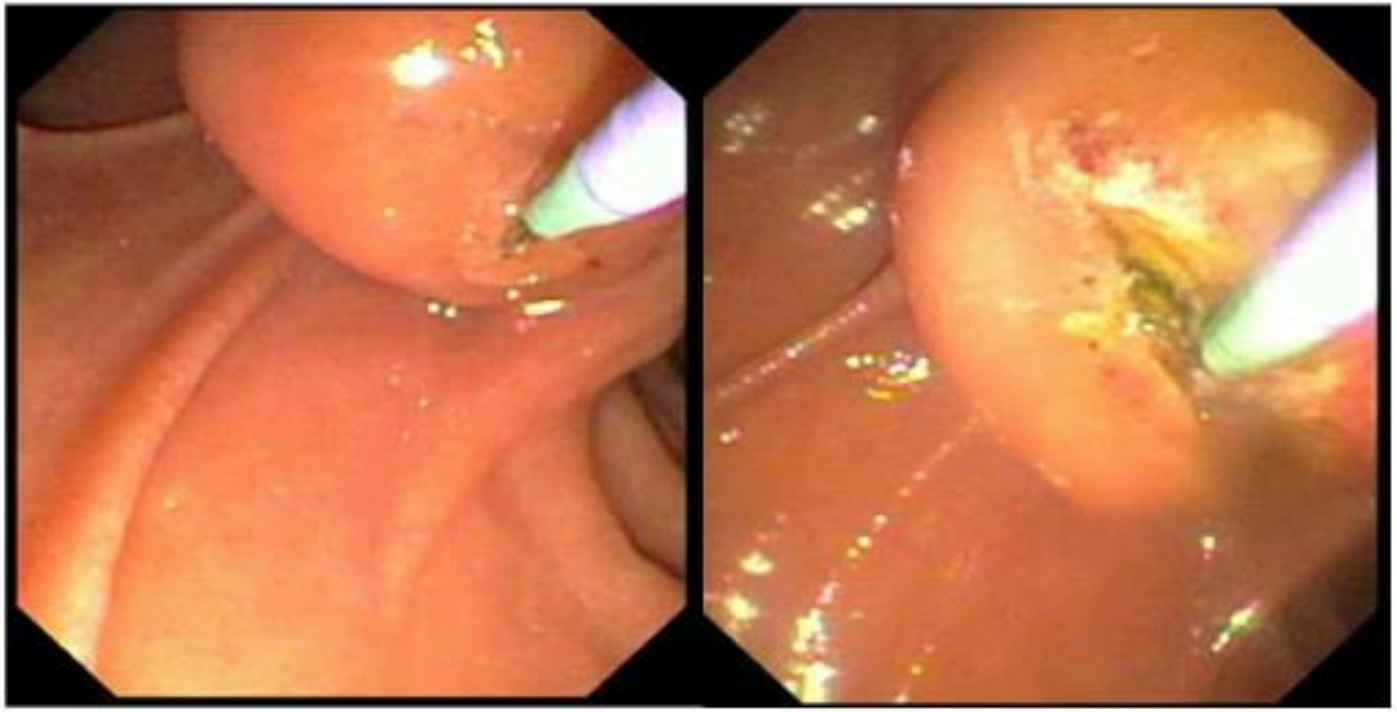

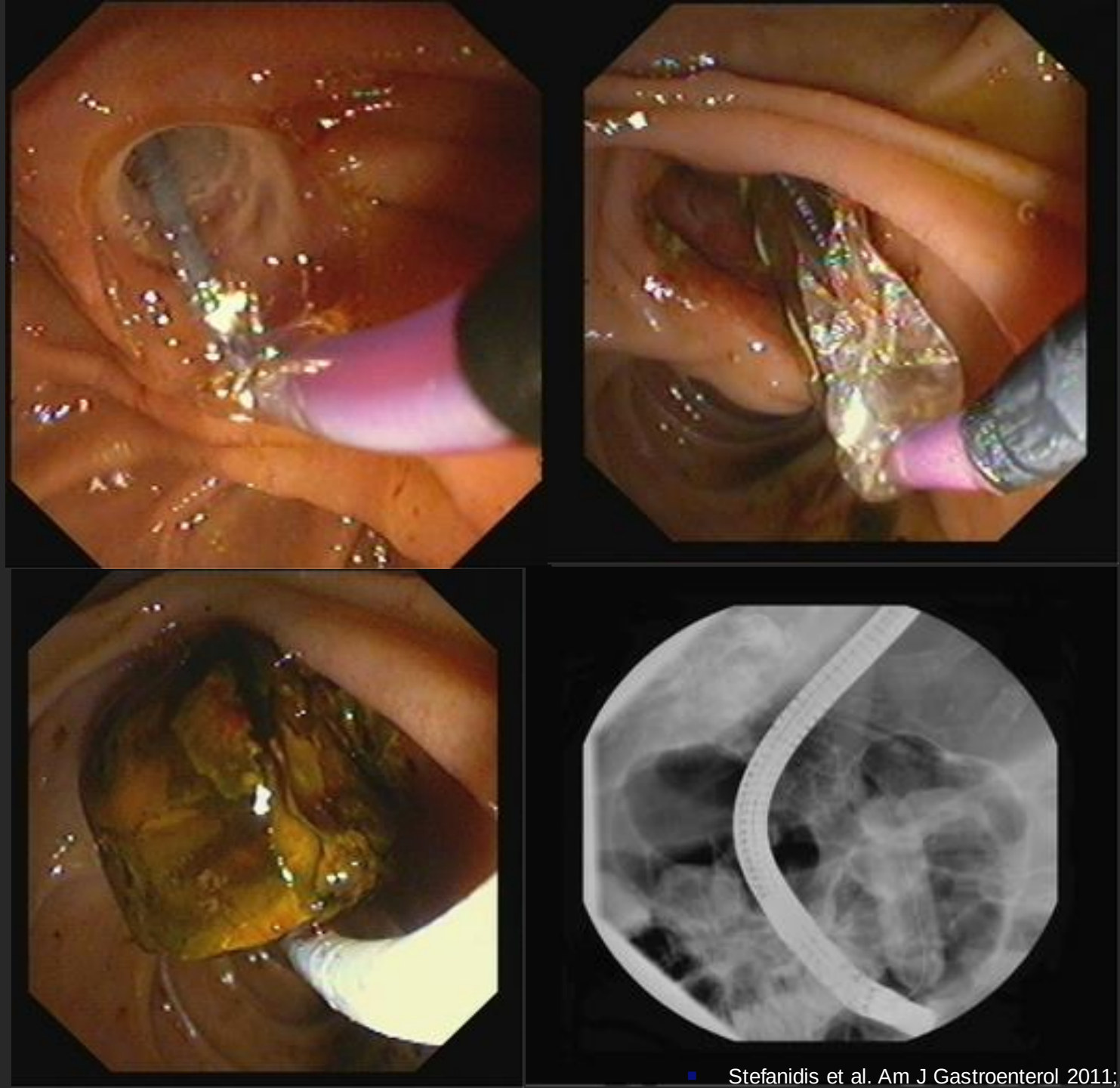

- Stefanidis et al. Am J Gastroenterol 2011;106:278–285


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Dilatation

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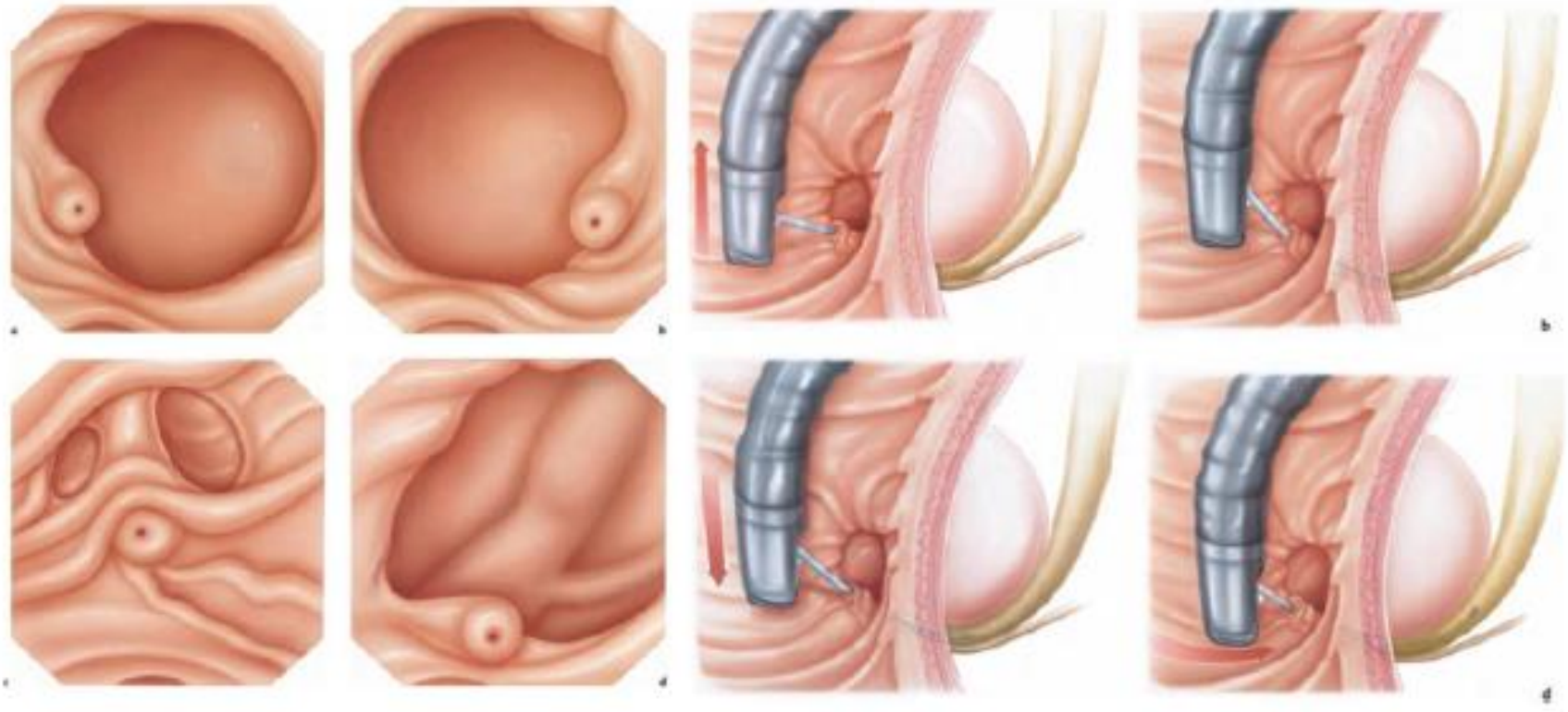

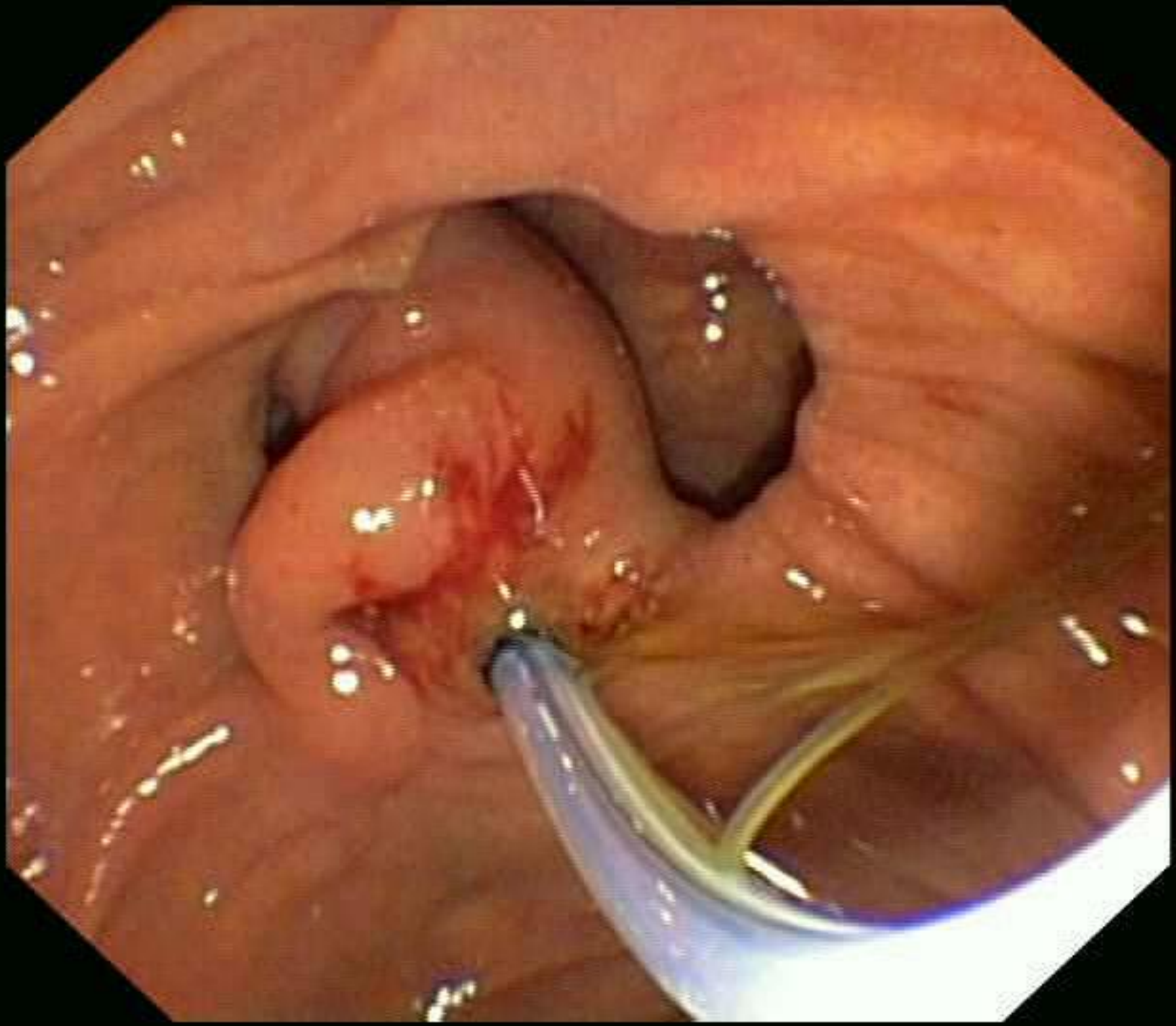


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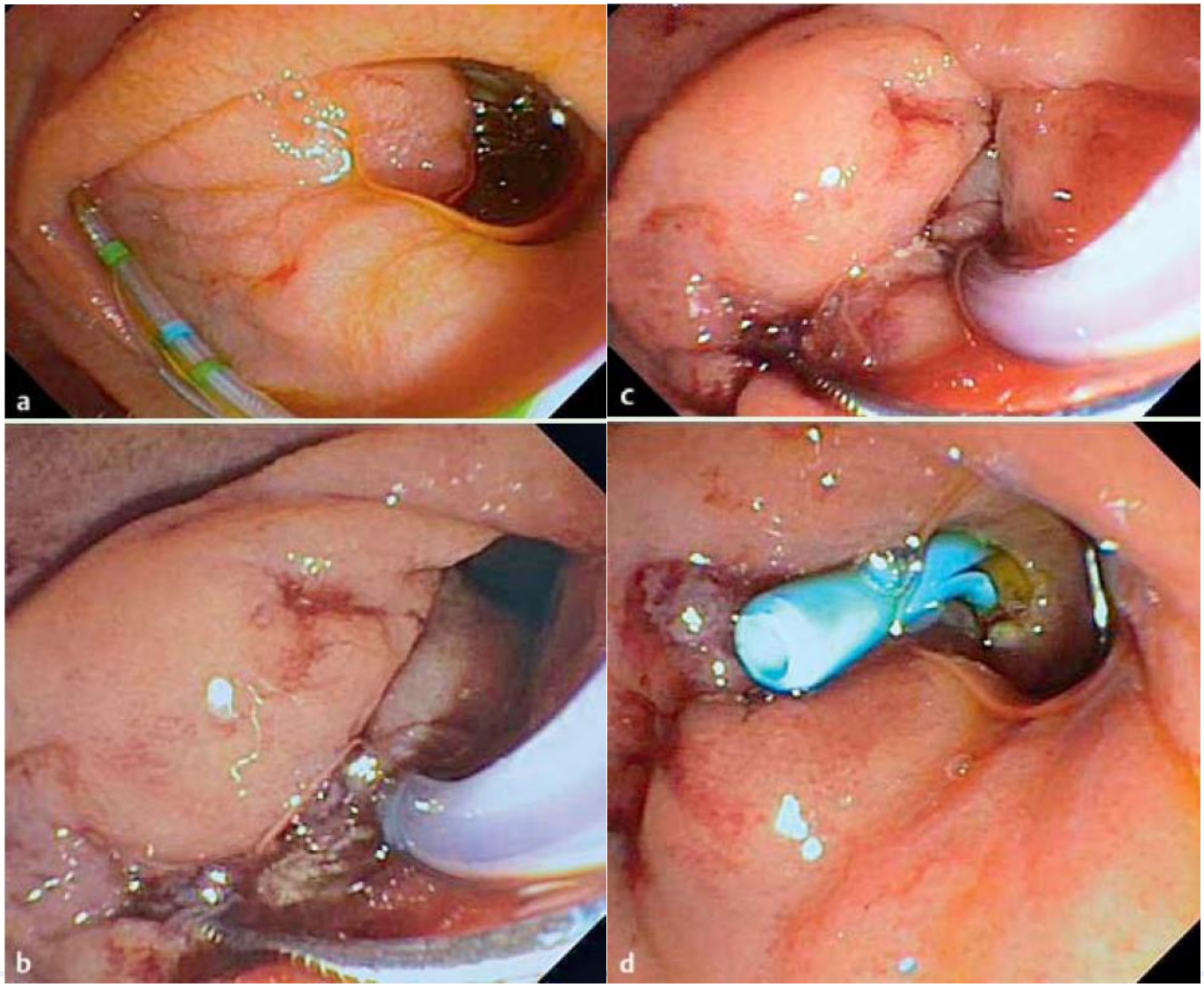
ENDOBASE Untersuchung

Levenick John M et al. SpyBite-assisted biliary cannulation for IDP… Endoscopy 2014; 46: E514



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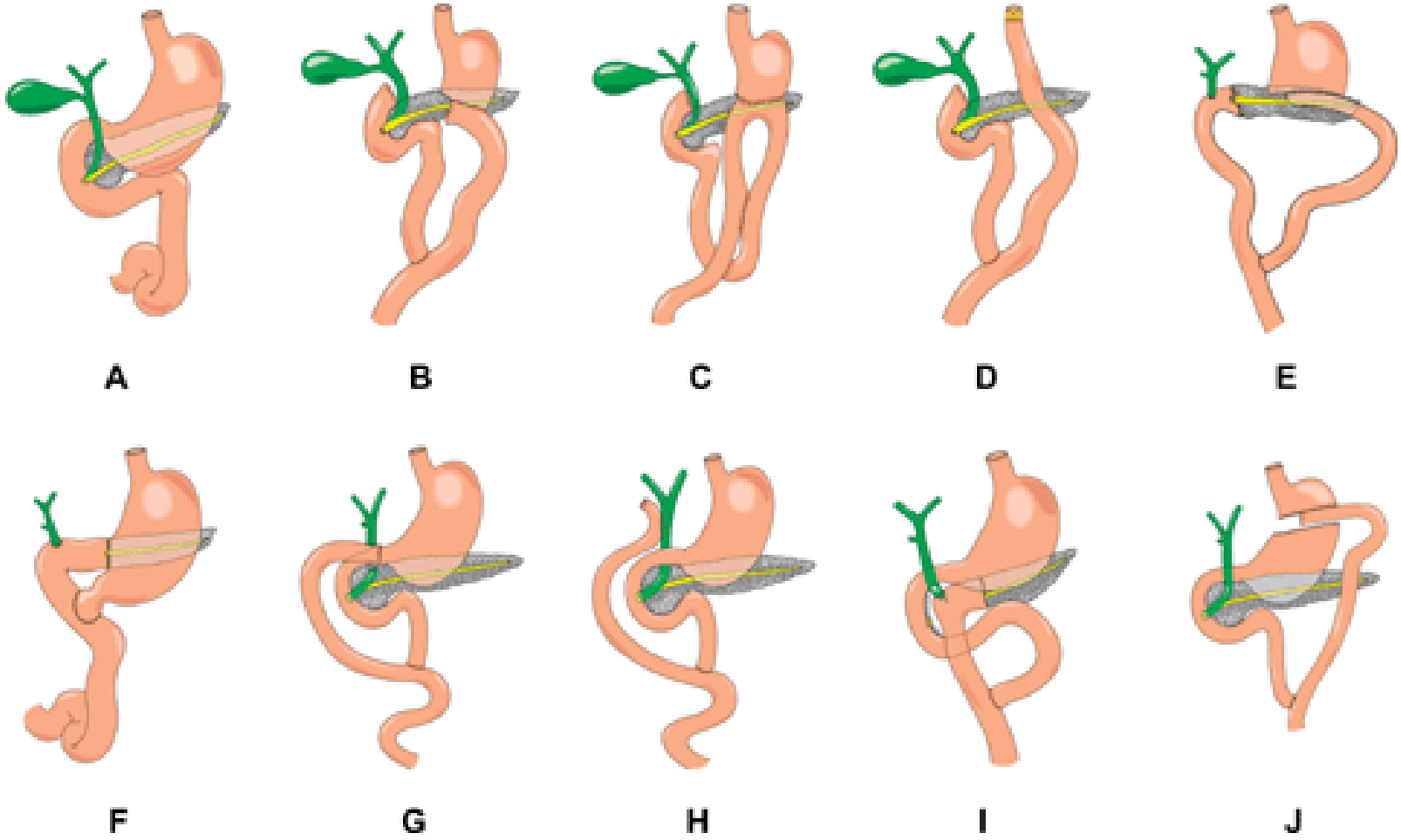

Maaser et al: The American Journal of Gastroenterology 103, 894-900 (April 2008)

Operation mit erhaltener bilio-pankreatischer Anatomie	Operation mit veränderter bilio-pankreatischer Anatomie
Billroth I Billroth II	partielle Duodenopankrea-tektomie – Kausch-Whipple-Operation mit Magenteilresektion – Pylorus-erhaltend (PPPD)
Roux-en-Y-Gastrojejunostomie oder Ösophagojejunostomie	Roux-en-Y Hepatikojejunostomie
duodenumerhaltende Pankreas-kopfresektion (erhaltene Gallenwegsanatomie)	Choledochojejunostomie Choledochoduodenostomie
Magen-Bypass (Adipositas-Chirurgie)	

Autor	Jahr	n	Erfolg	Endoskop
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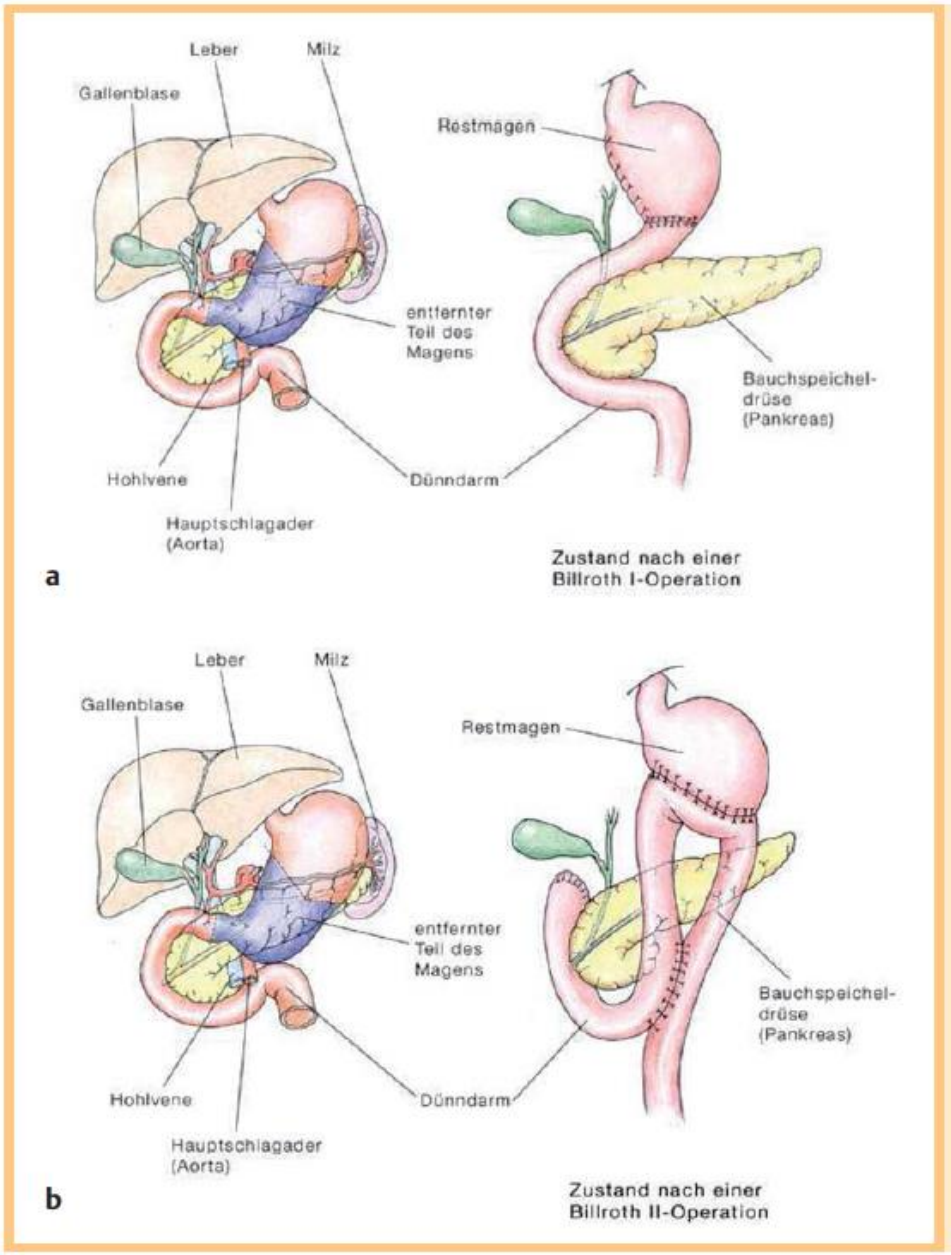
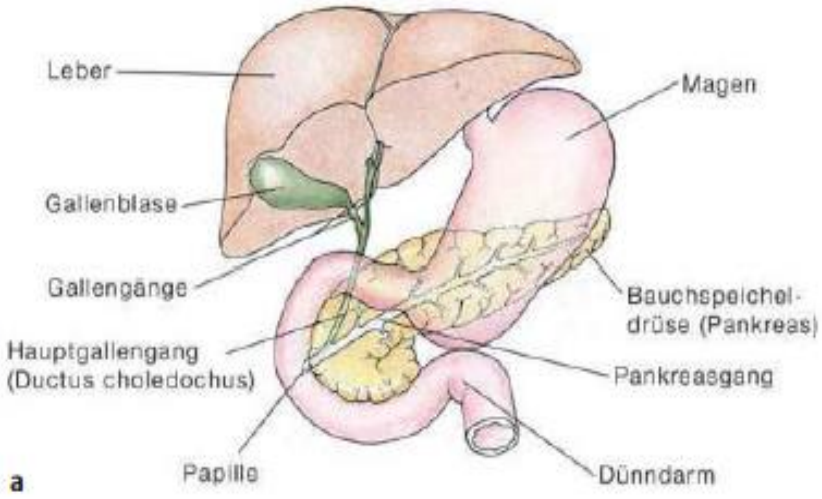
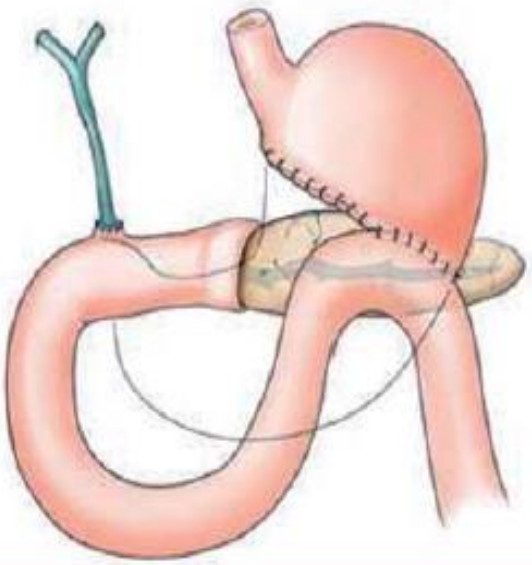
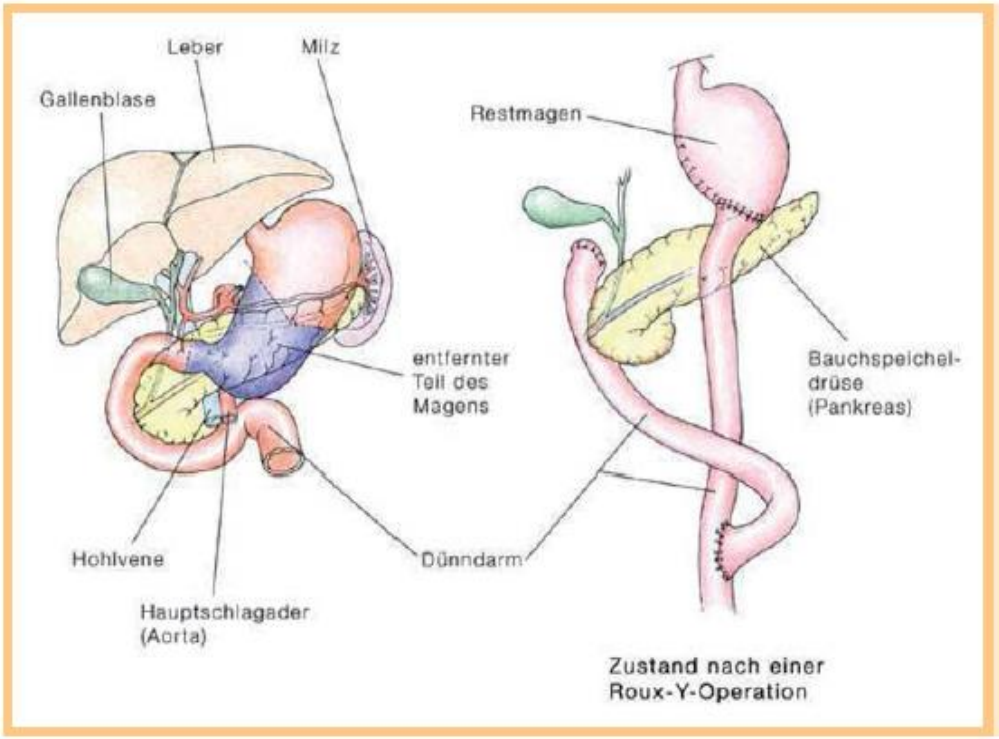
Osnes [15]	1986	147	92%	Seitblick-Optik
Hintze [16]	1997	54	92%	–
Kim [17]	1997	45	68% 87%	Seitblick-Optik Geradeausblick-Optik
Schulz [7]	1998	386	73%	Seitblick-Optik
Faylona [6]	1999	110	66%	
Aabakken [18]	2003	138	89%	–
Cicek [11]	2007	59	83%[1] 29%[2]	Seitblick-Optik
Nakahara [19]	2009	43	88%	Seitblick-Optik



Albert JG et al. Endoskopisch-retrograde Cholangiopankreatografie (ERCP)… Z Gastroenterol 2010; 48: 839–849







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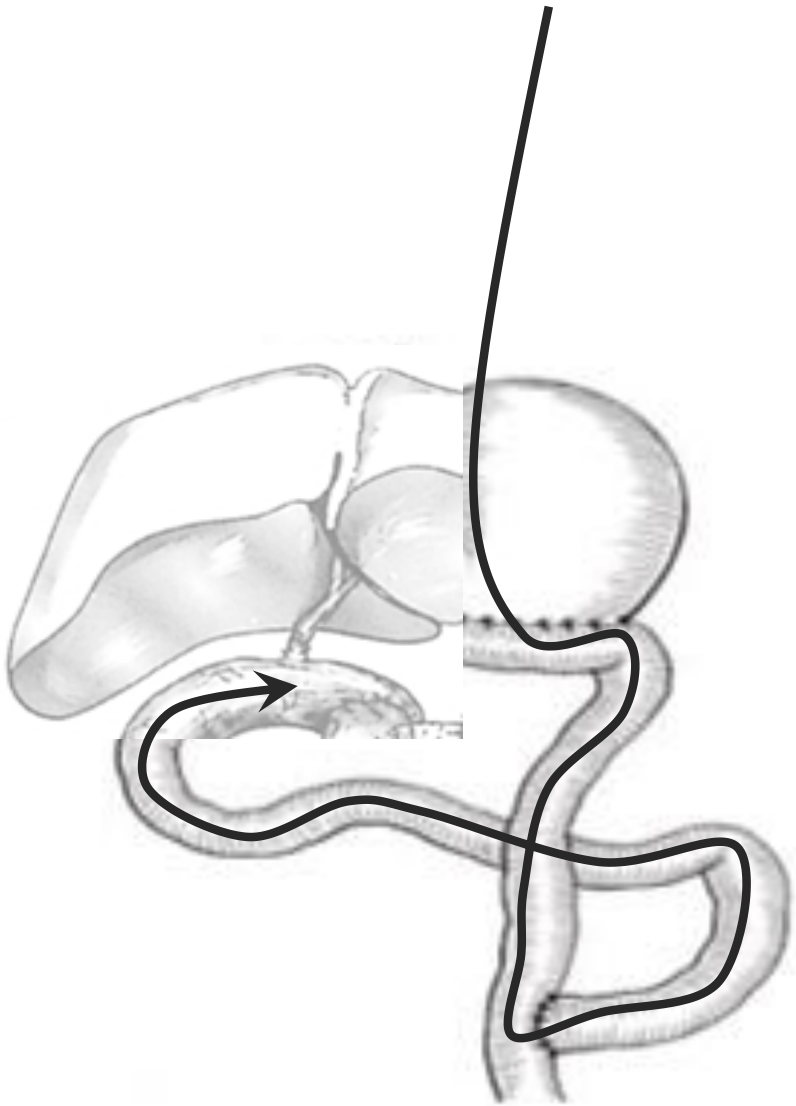

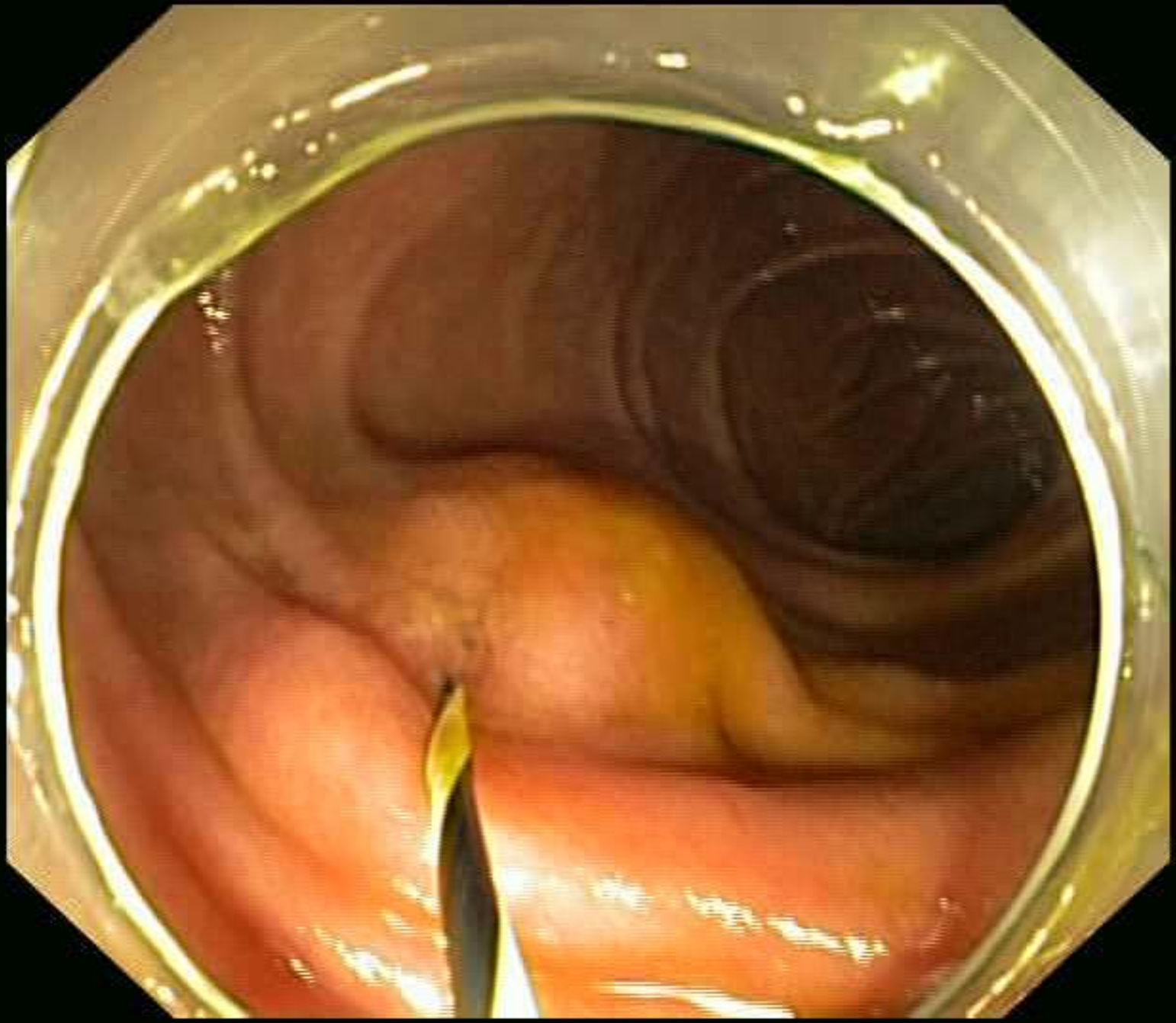

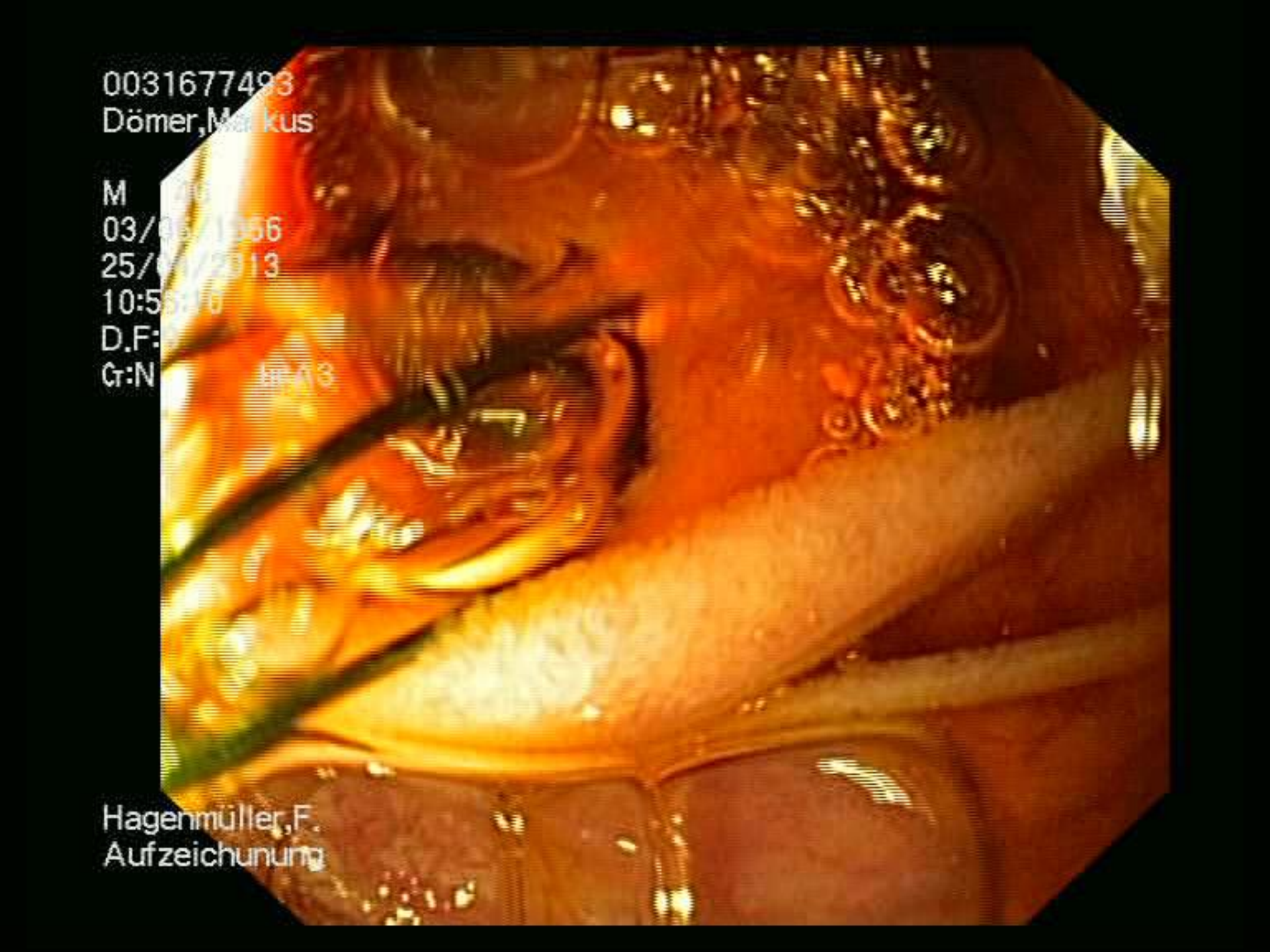
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8. Papillectomy

PTCD

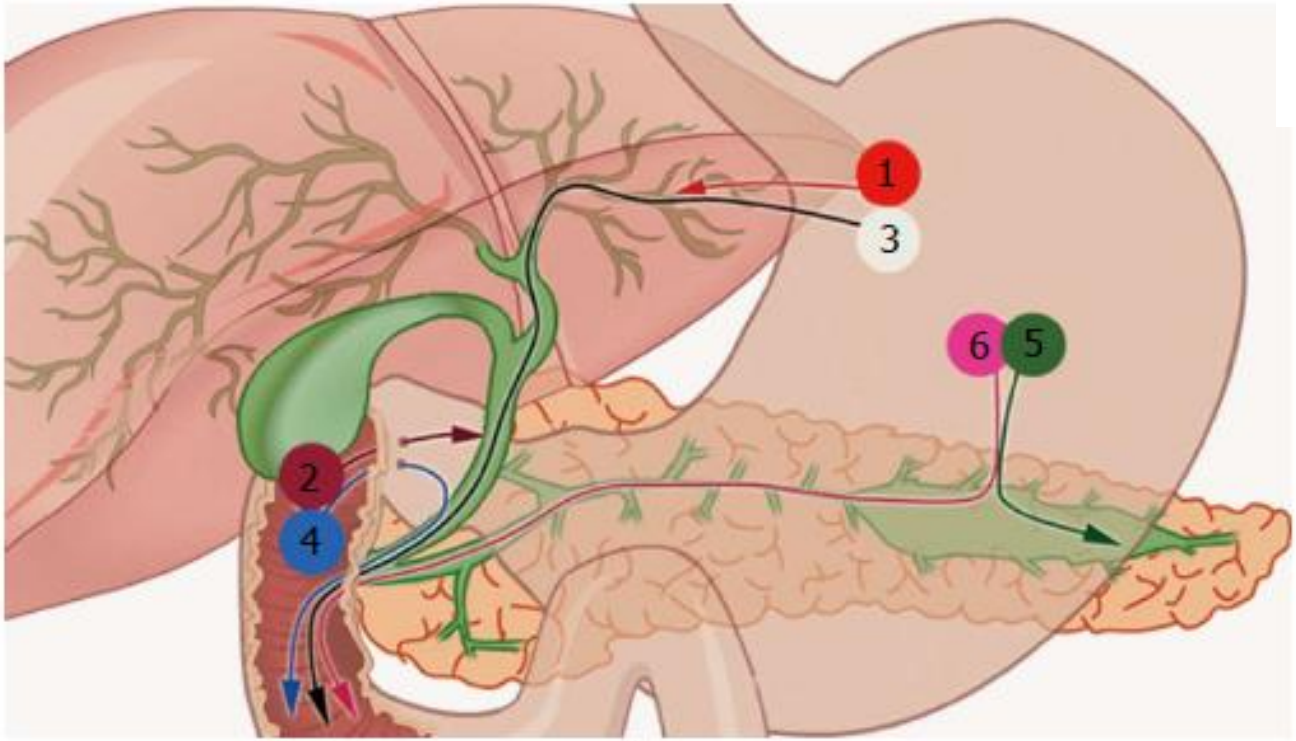

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Figure 1 Therapeutic endosonographic cholangiopancreatography: Variant approaches. 1: Transmural drainage, intrahepatic access (hepaticogastrostomy); 2: Transmural drainage, extrahepatic access (choledochoduodenostomy); 3: Transpapillary drainage, intrahepatic access; 4: Transpapillary drainage, extrahepatic access; 5: Transmural drainage, pancreatic access (pancreaticogastrostomy); 6: Transpapillary drainage, pancreatic access.

Agenda

1. Positioning
2. Anatomy of the papilla
3. Intubation of the bile duct
4. EPT / Needle knive / Precut
5. Diverticula
6. Postsurgical anatomy
7. No success – what to do?
8. **Papillectomy**